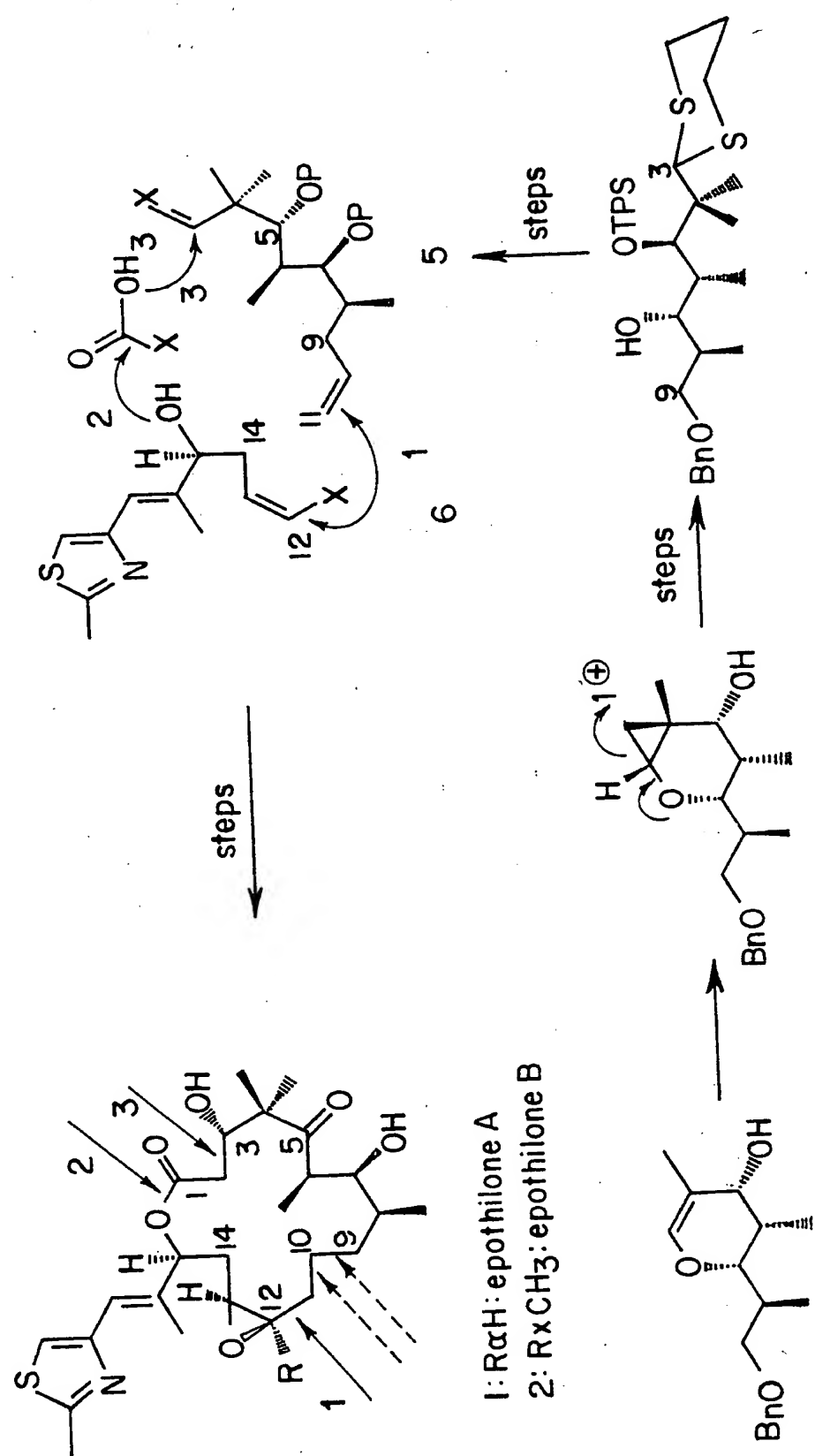


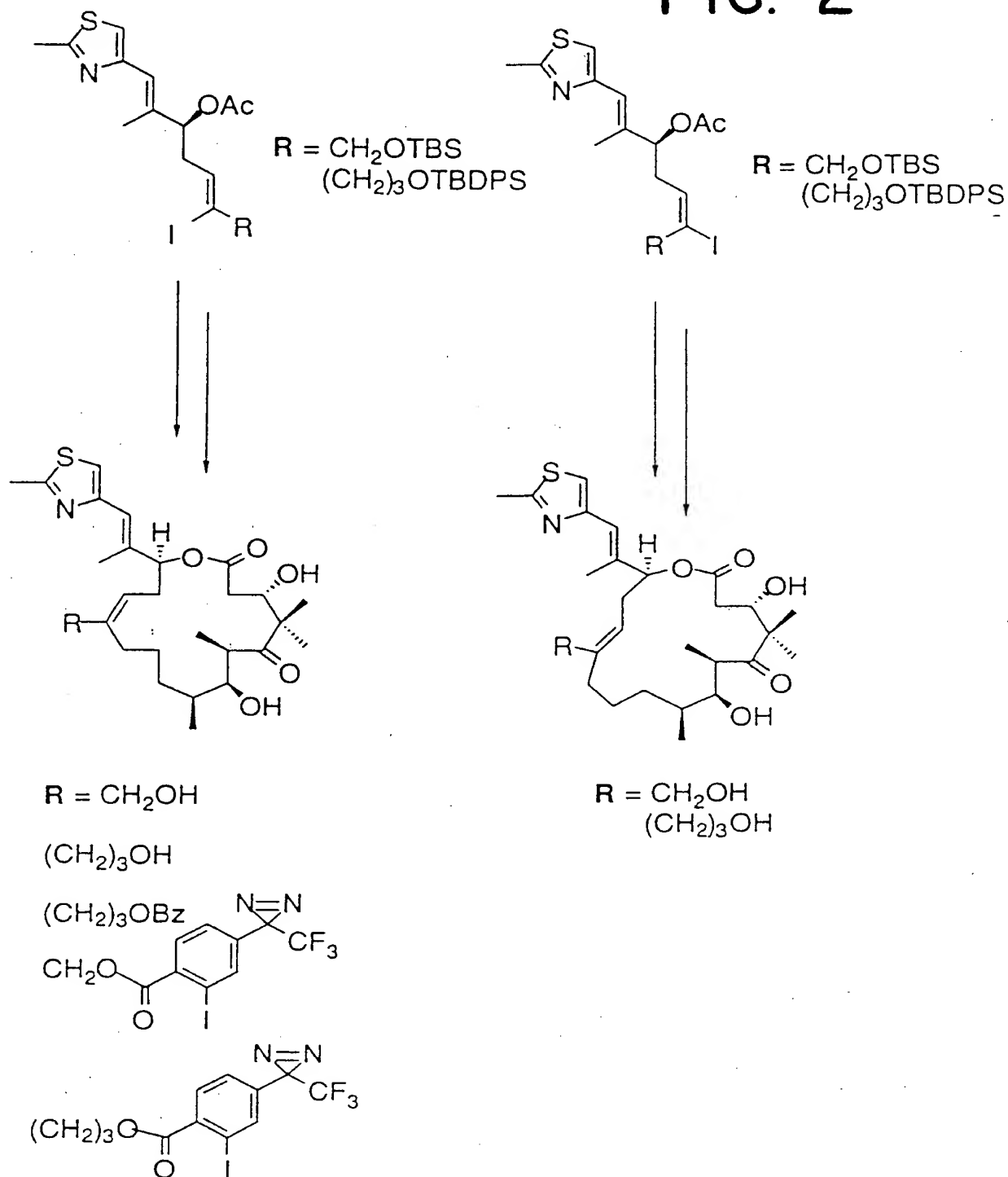
FIG. 1A



1: R α H: epothilone A
2: R α CH₃: epothilone B

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FIG. 2



AD-1	FIG.
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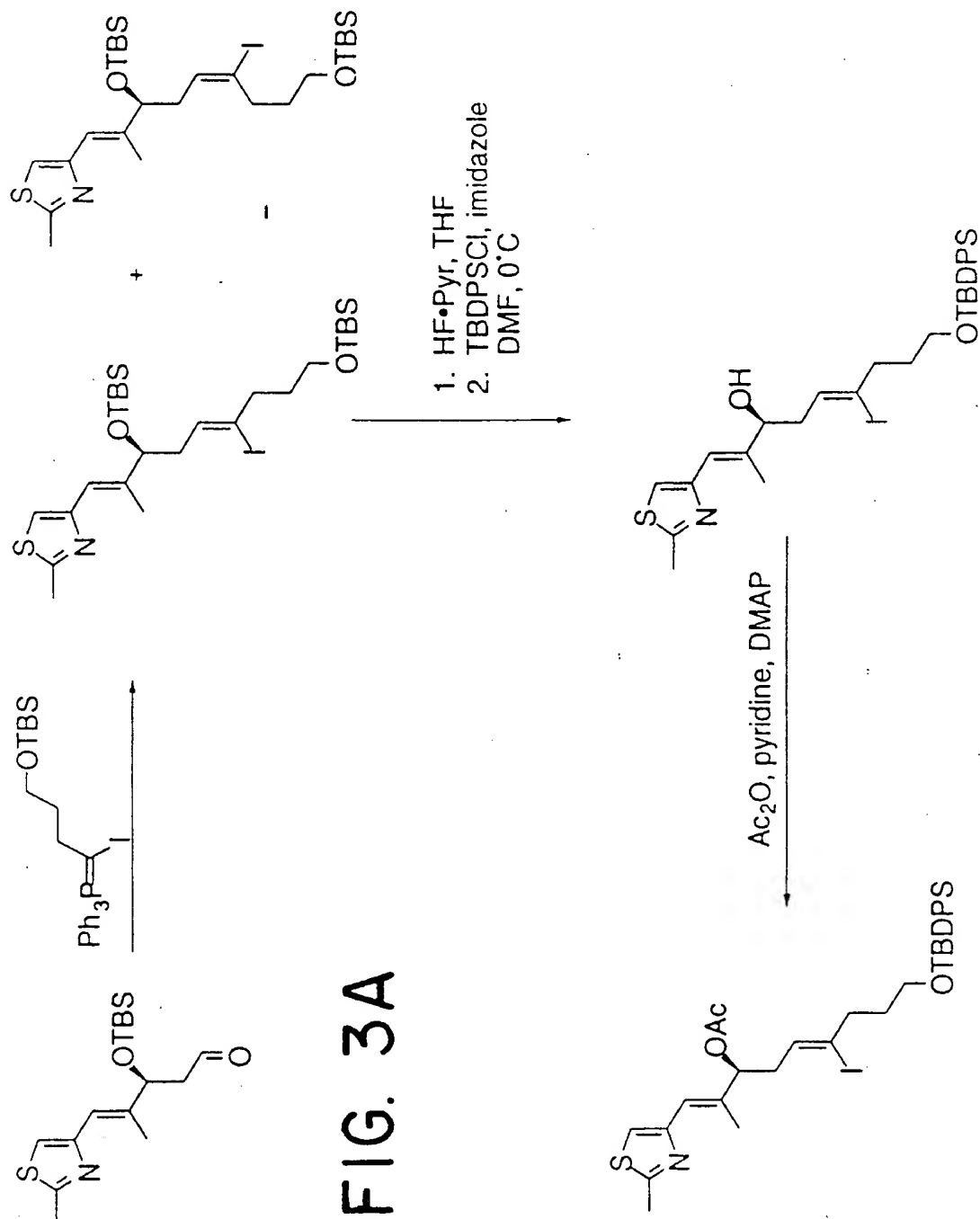
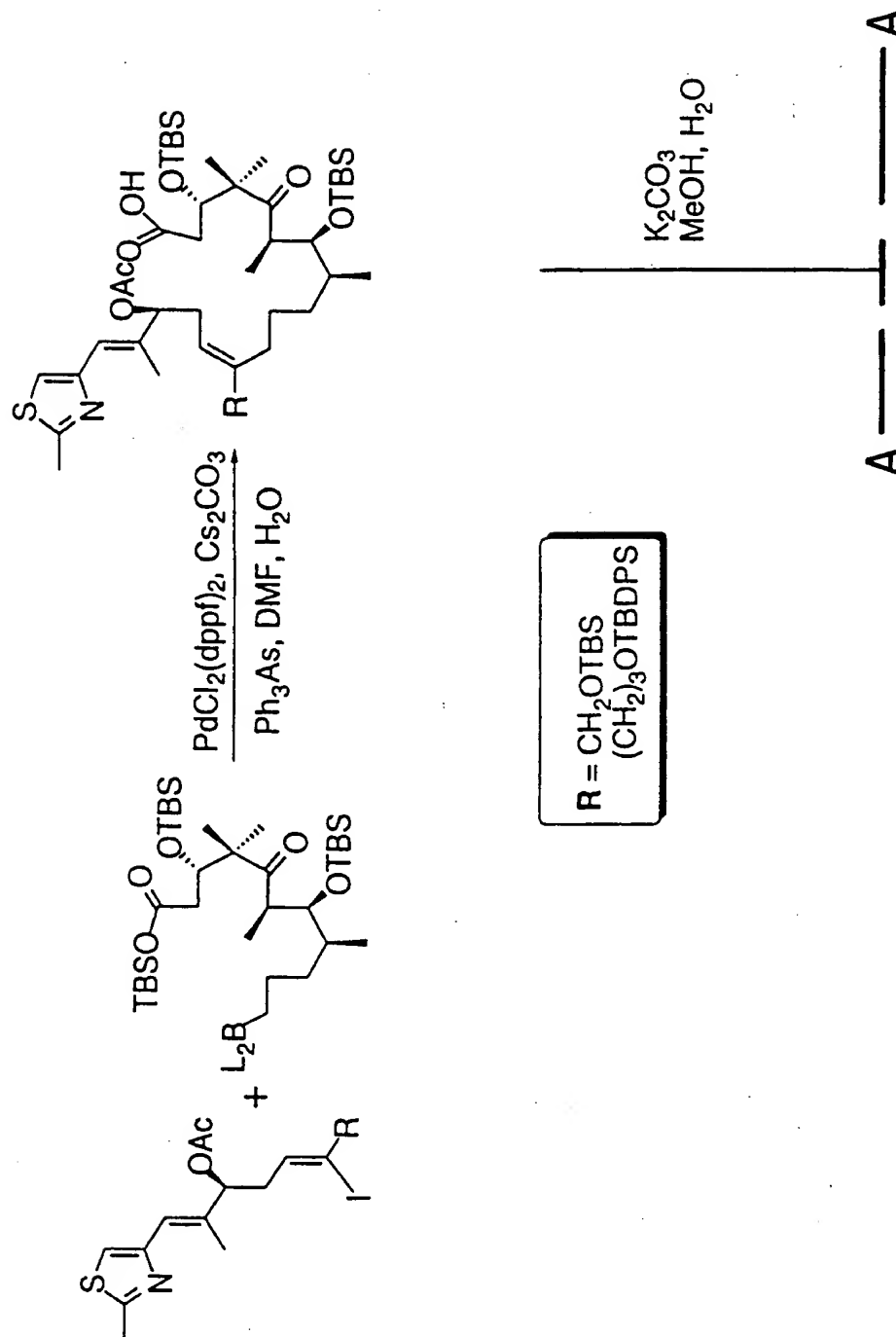


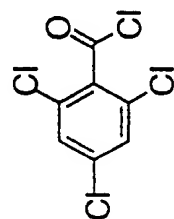
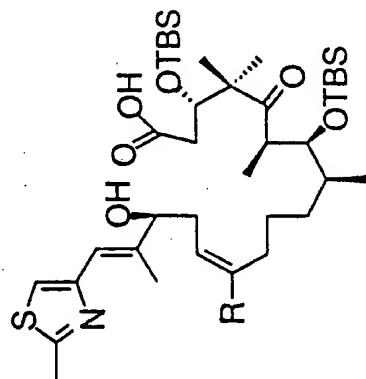
FIG. 3A

FIG. 3

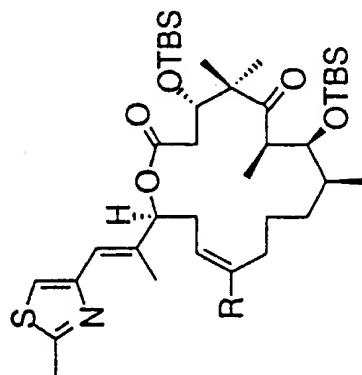


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A ——— T ——— A



TEA, 4-DMAP, C₆H₆



HF•pyridine
THF, 25°C

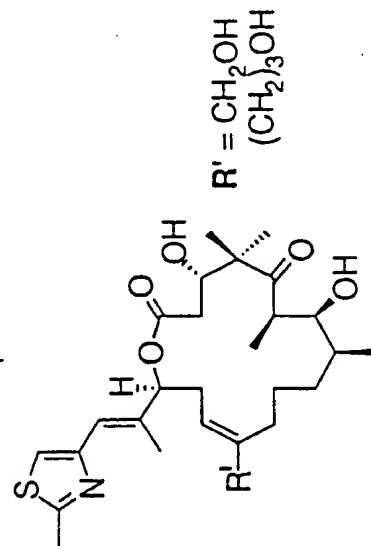


FIG. 3D

FIG. 3E

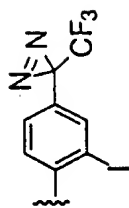
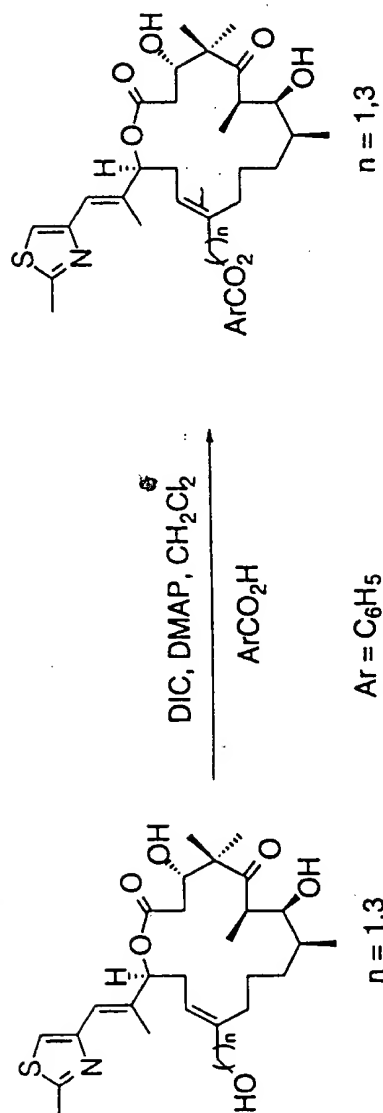


FIG. 3F

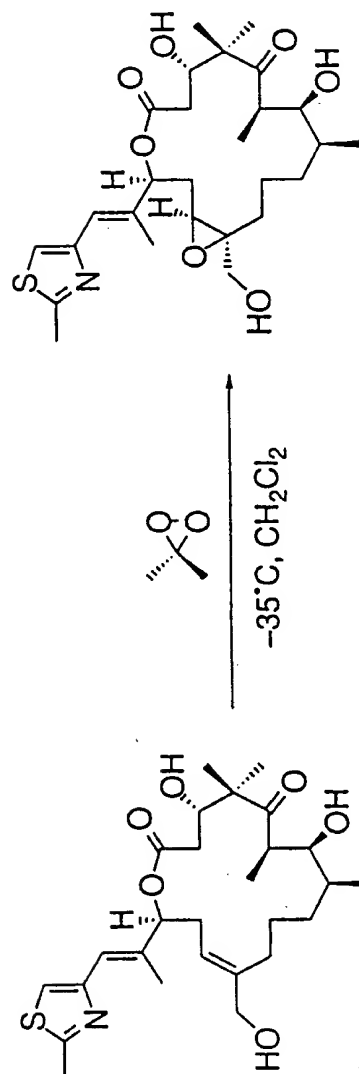


FIG. 4A

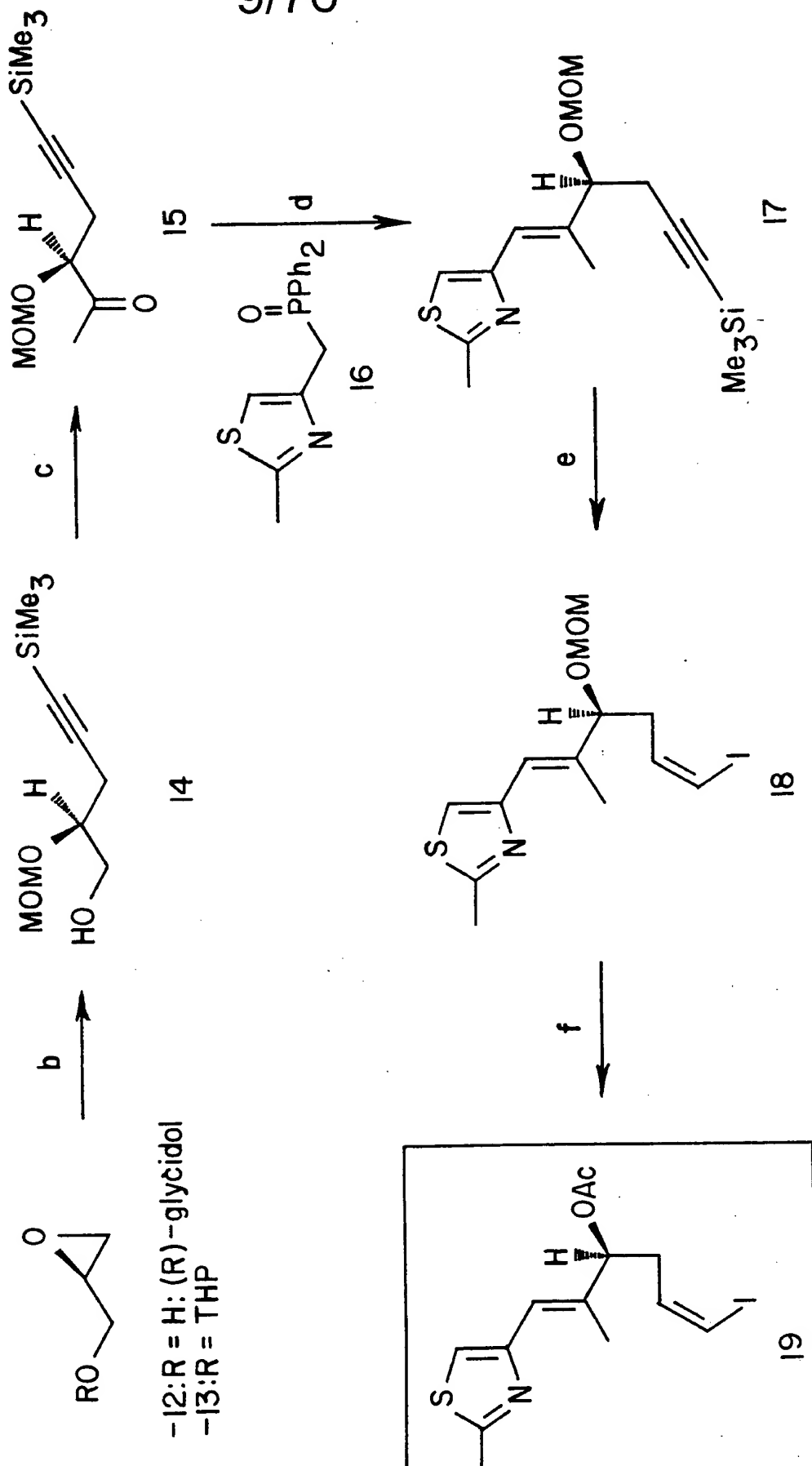


FIG. 4B

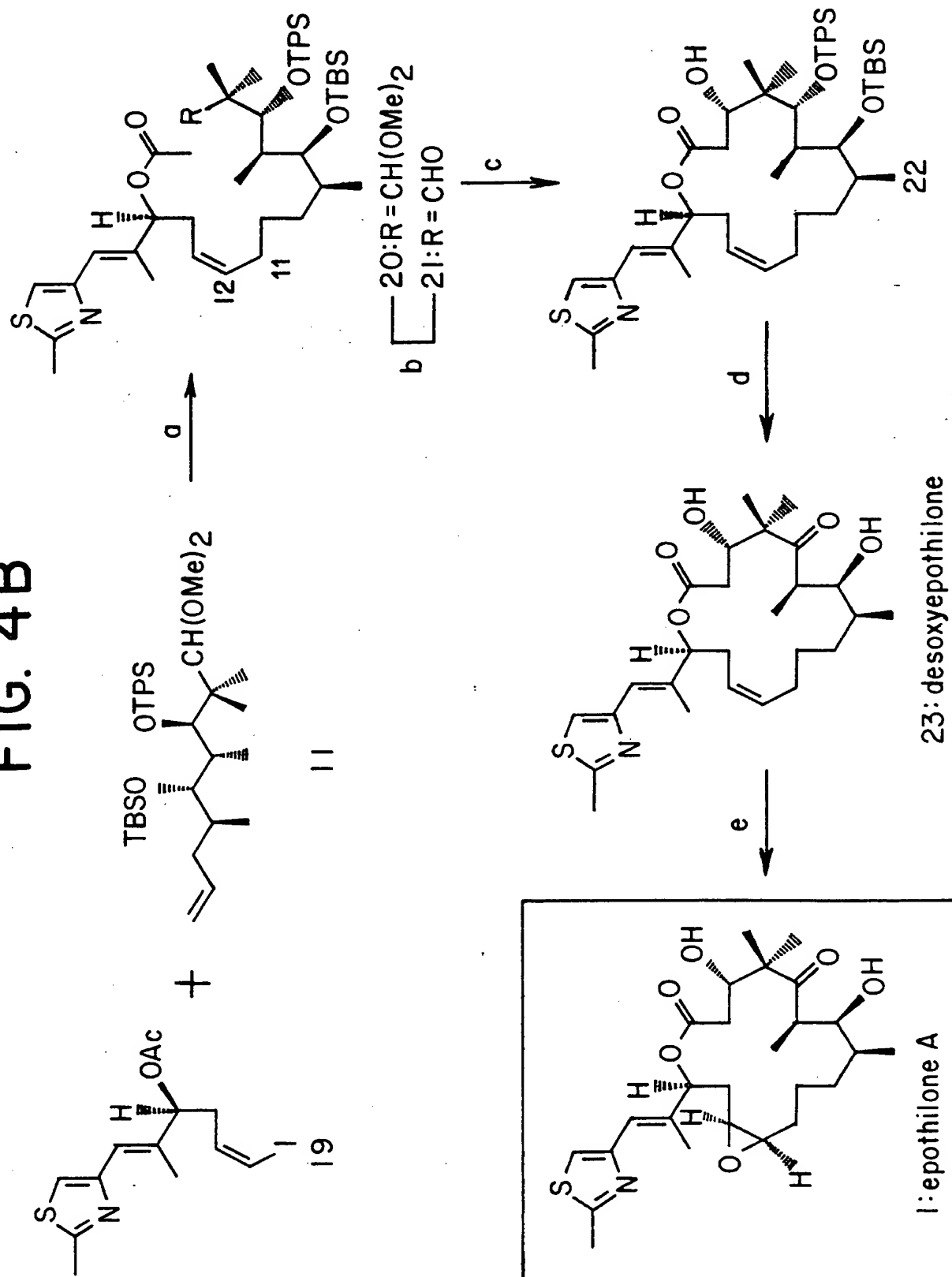
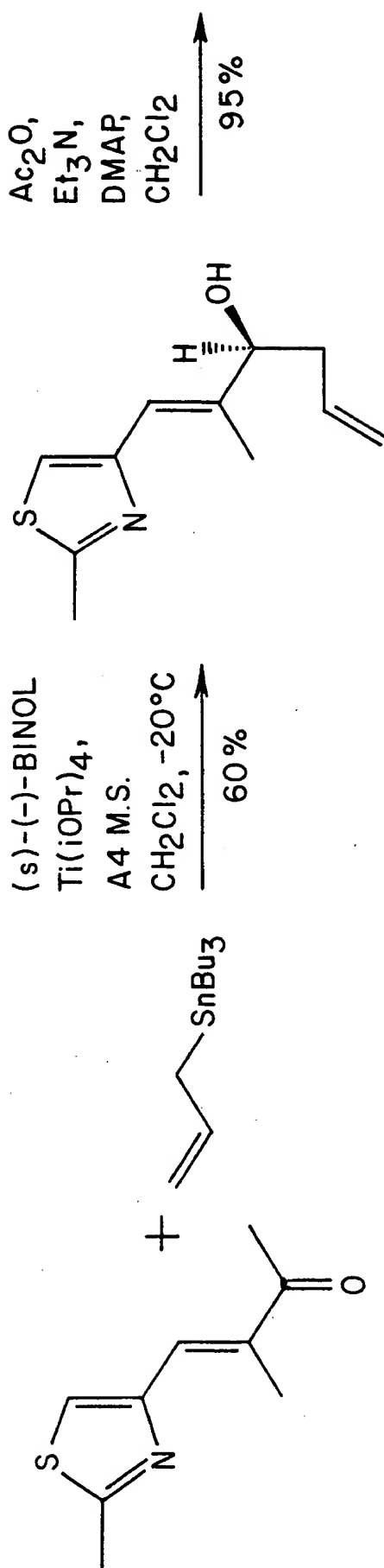
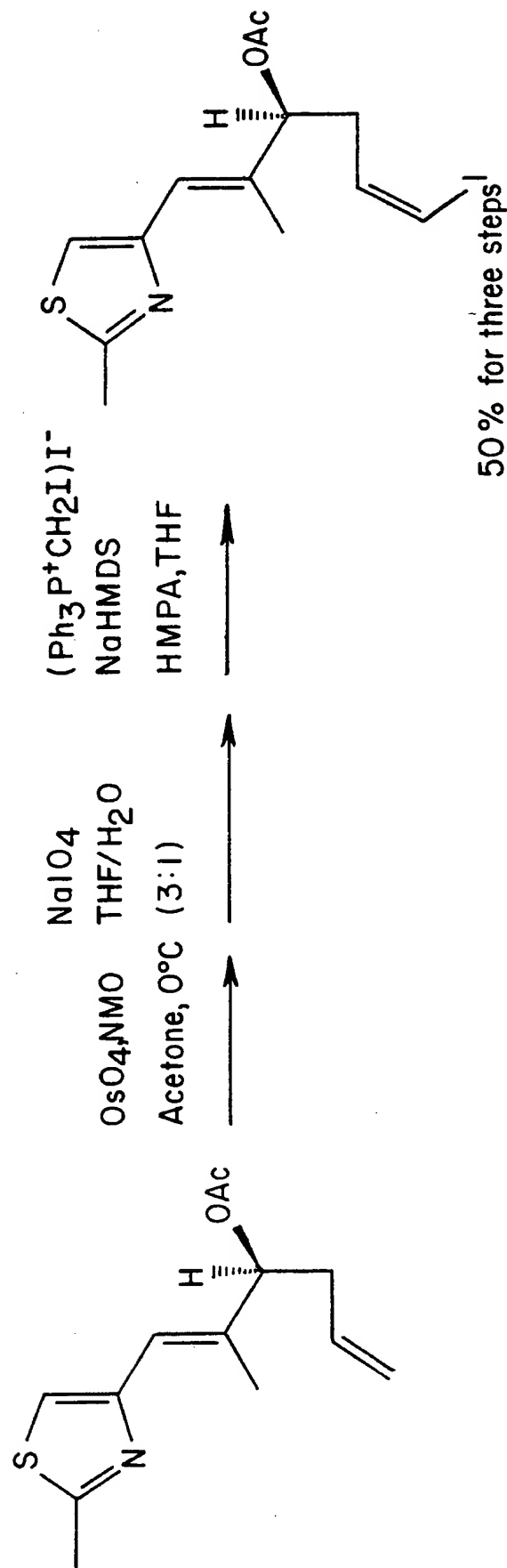


FIG. 5



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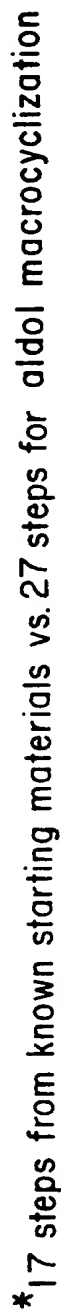
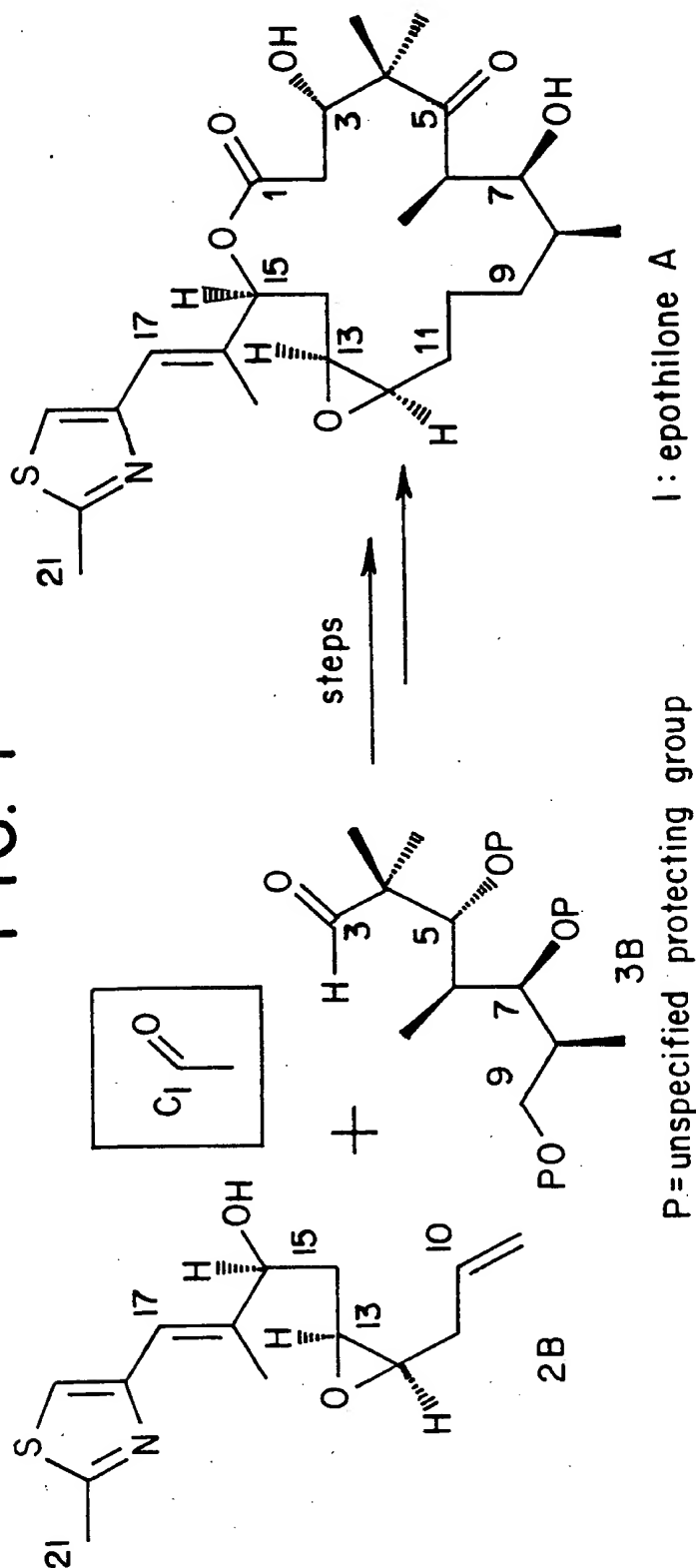
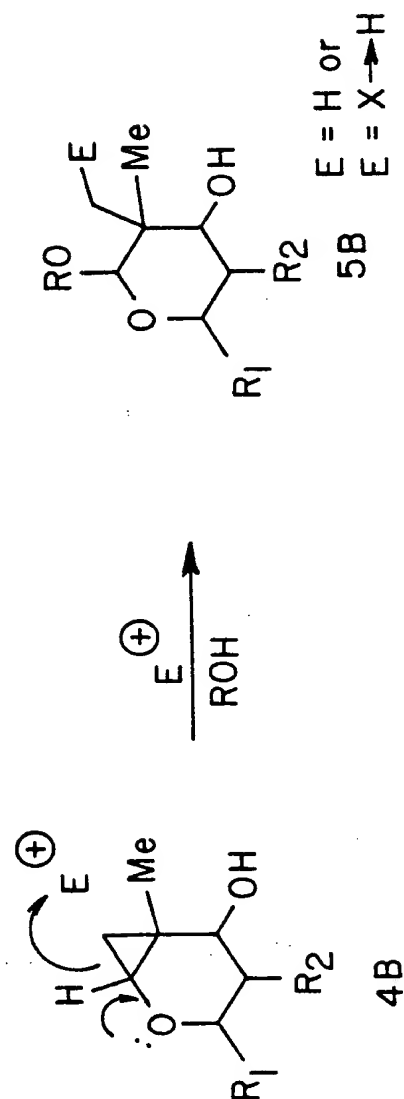
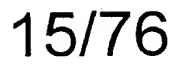


FIG. 7

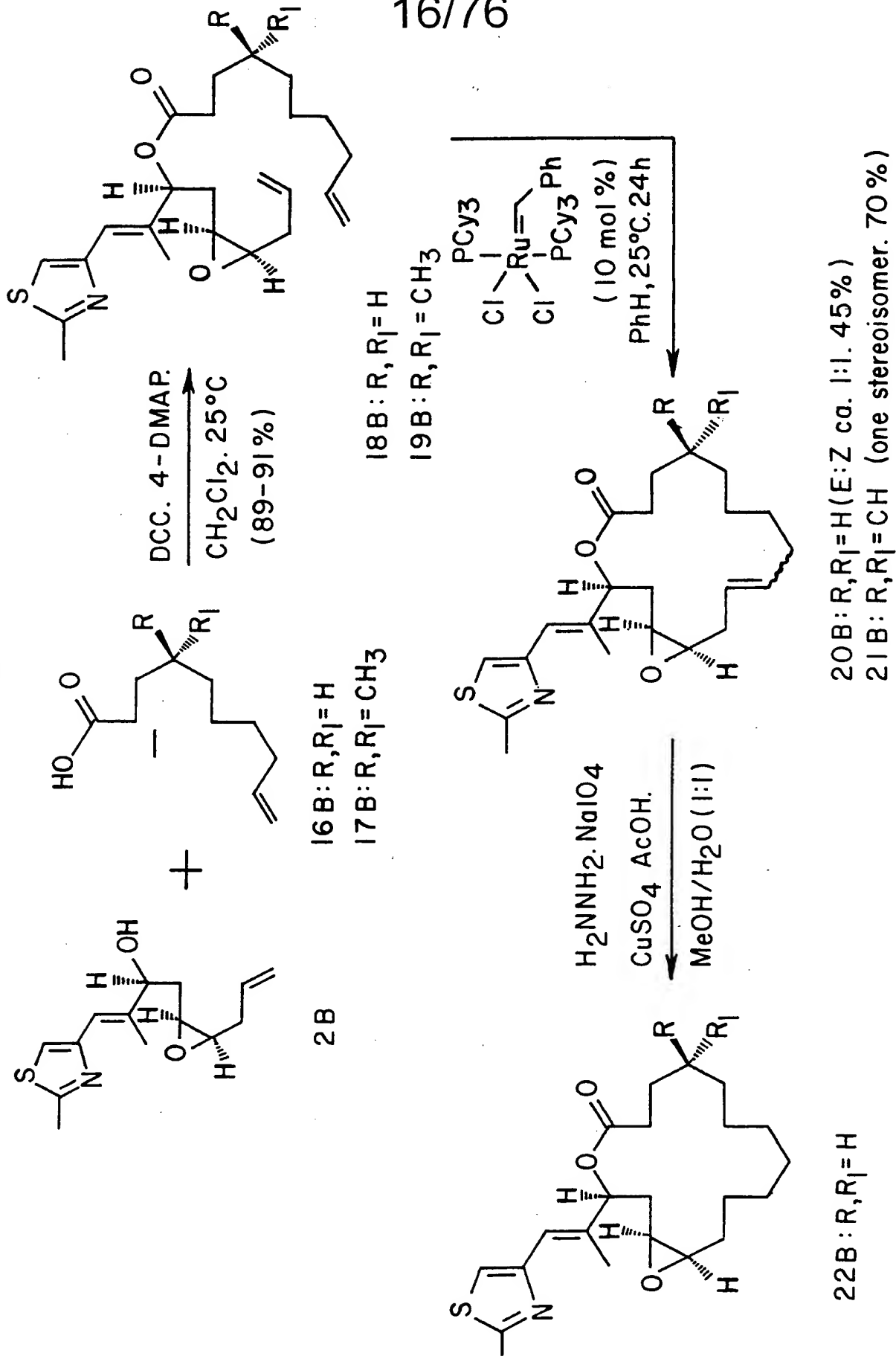


Convergent strategy for a total synthesis of epothilone A (1).



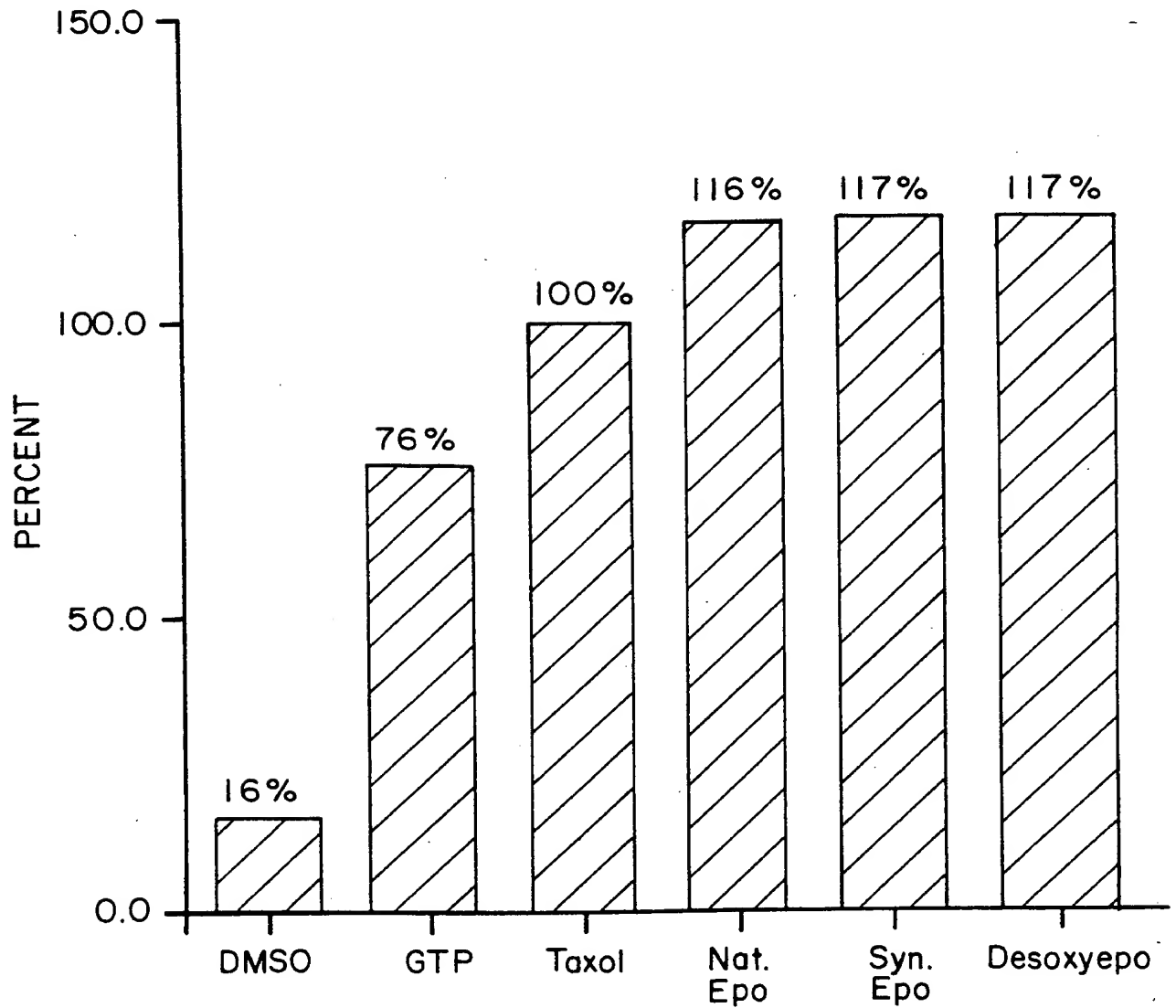


உள்ளு



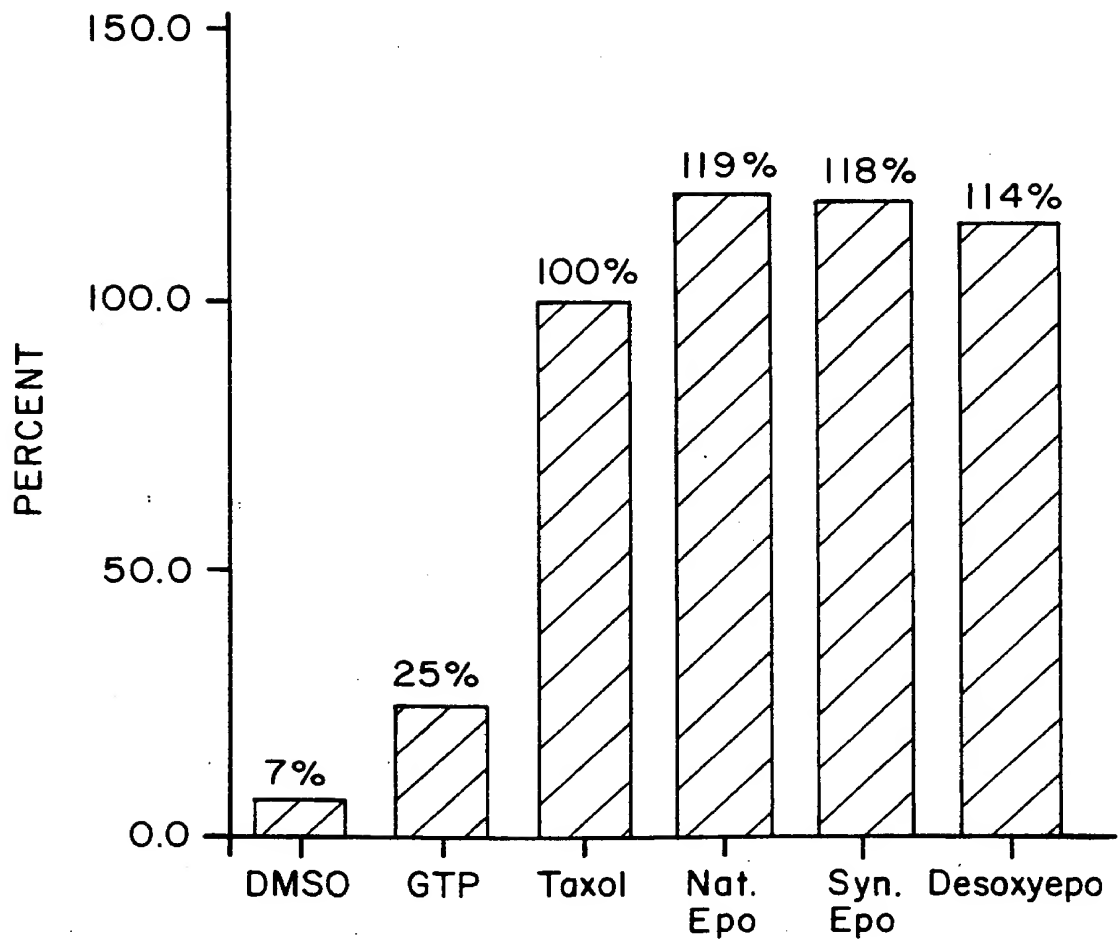
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FIG. 10



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FIG. II



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FIG. 13

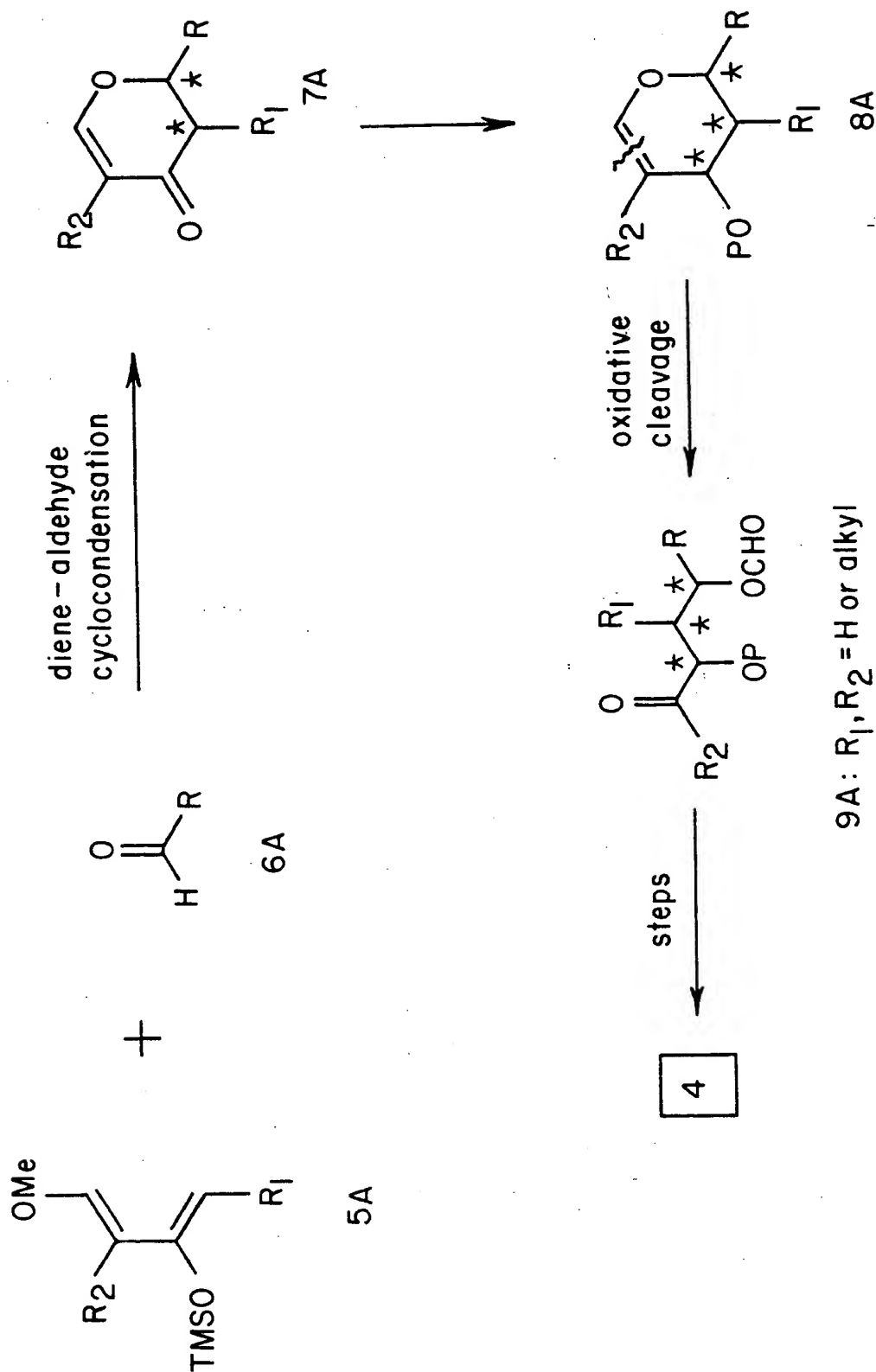


FIG. 14A

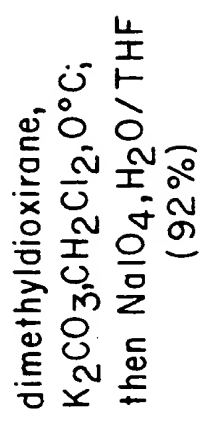
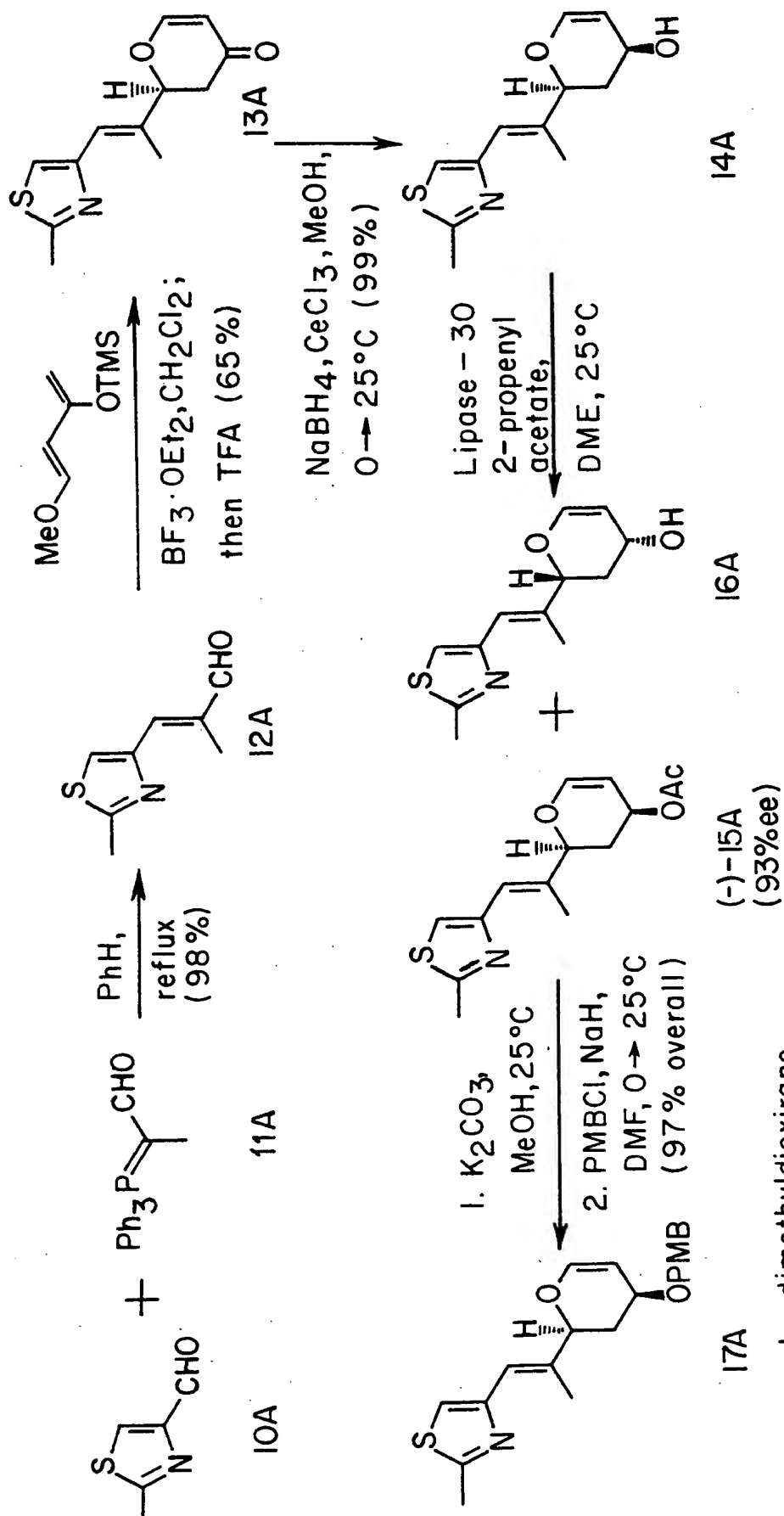
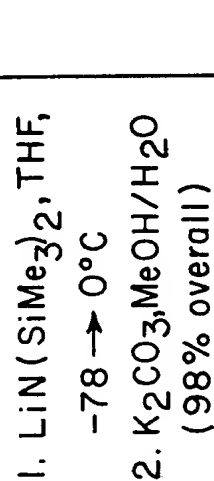
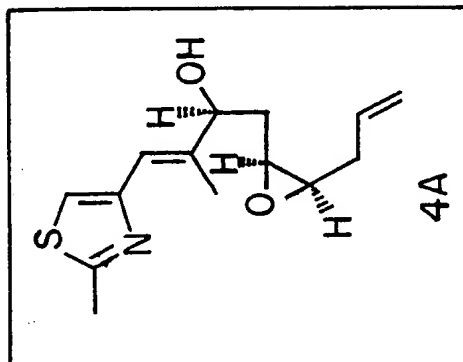
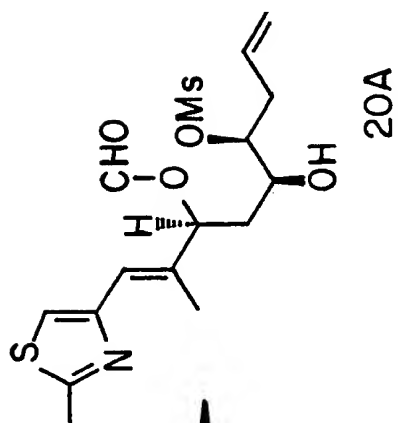
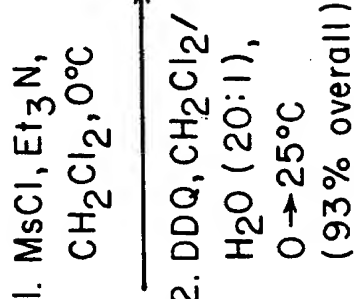
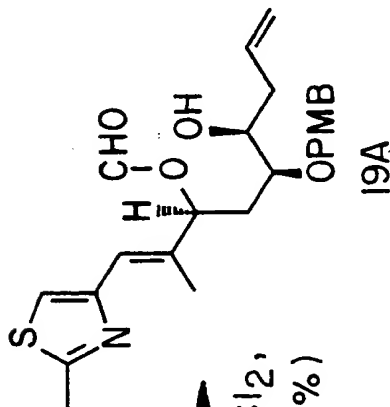
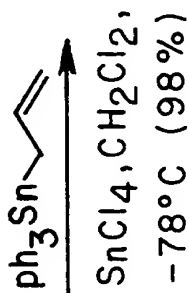
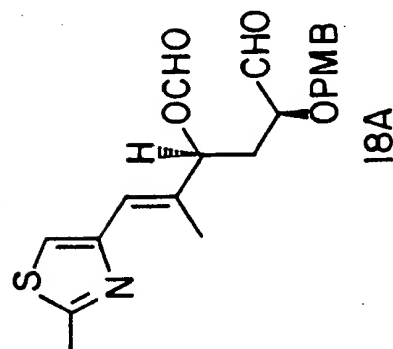
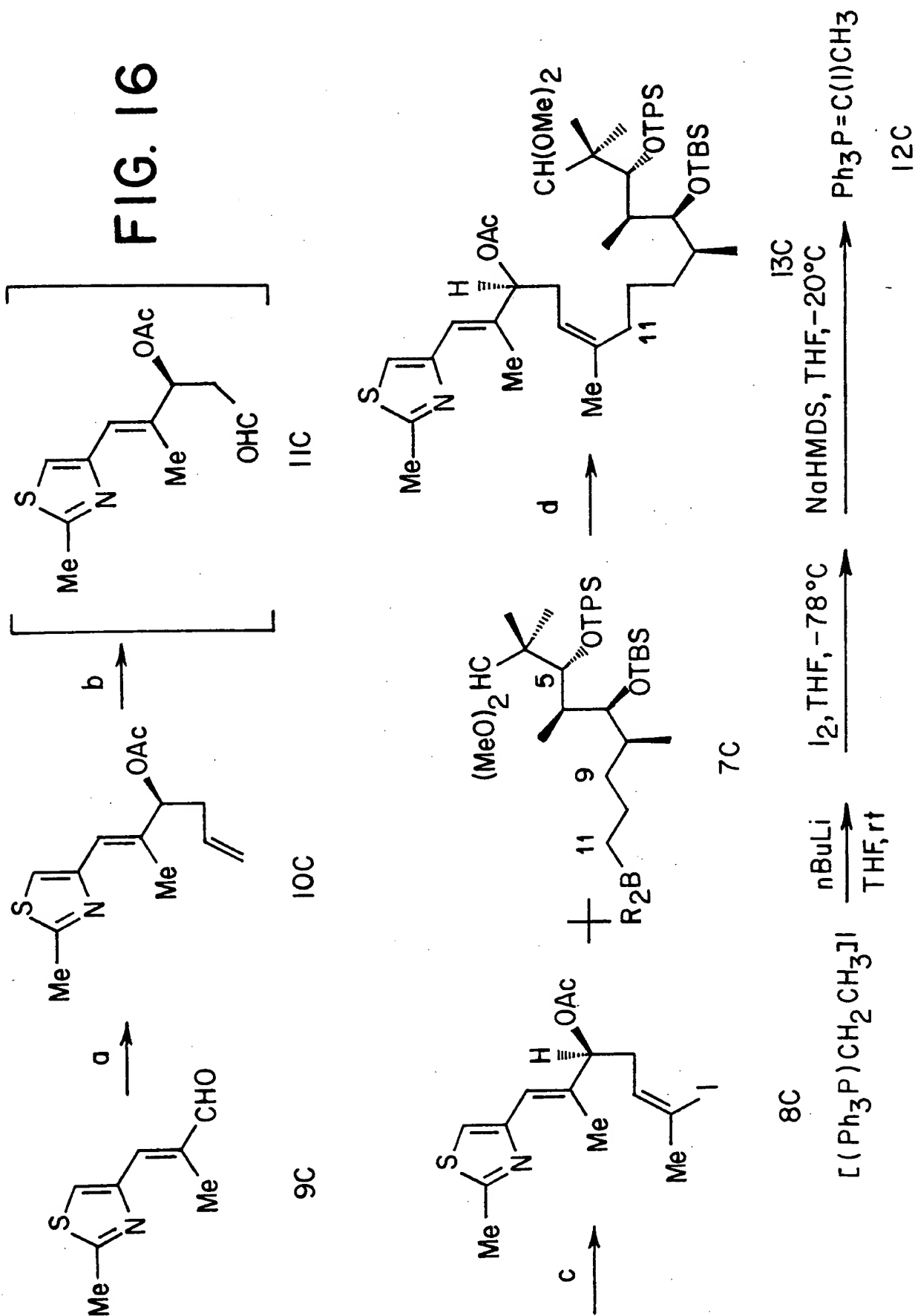


FIG. 14B



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ATTACH	FIG.
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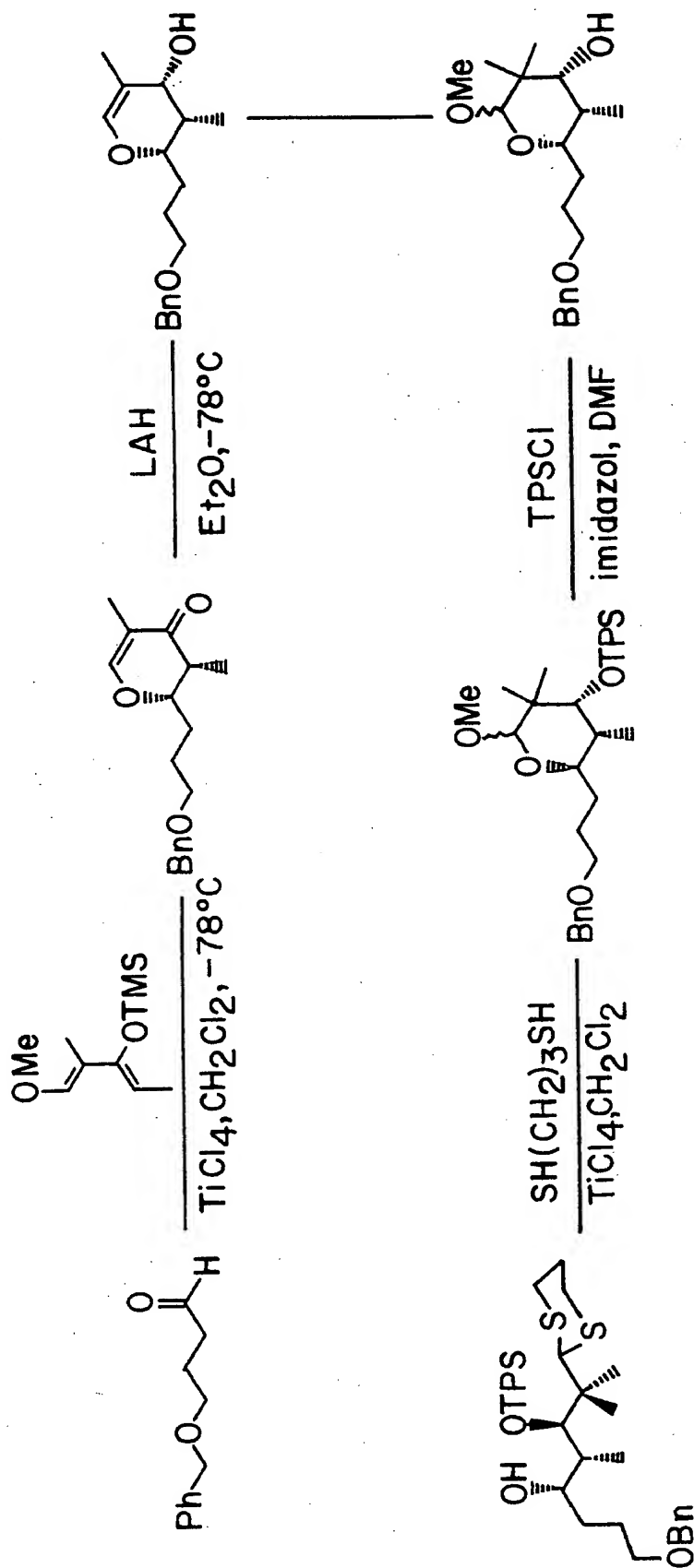


FIG. 18A

A ——— A

FIG. 18B

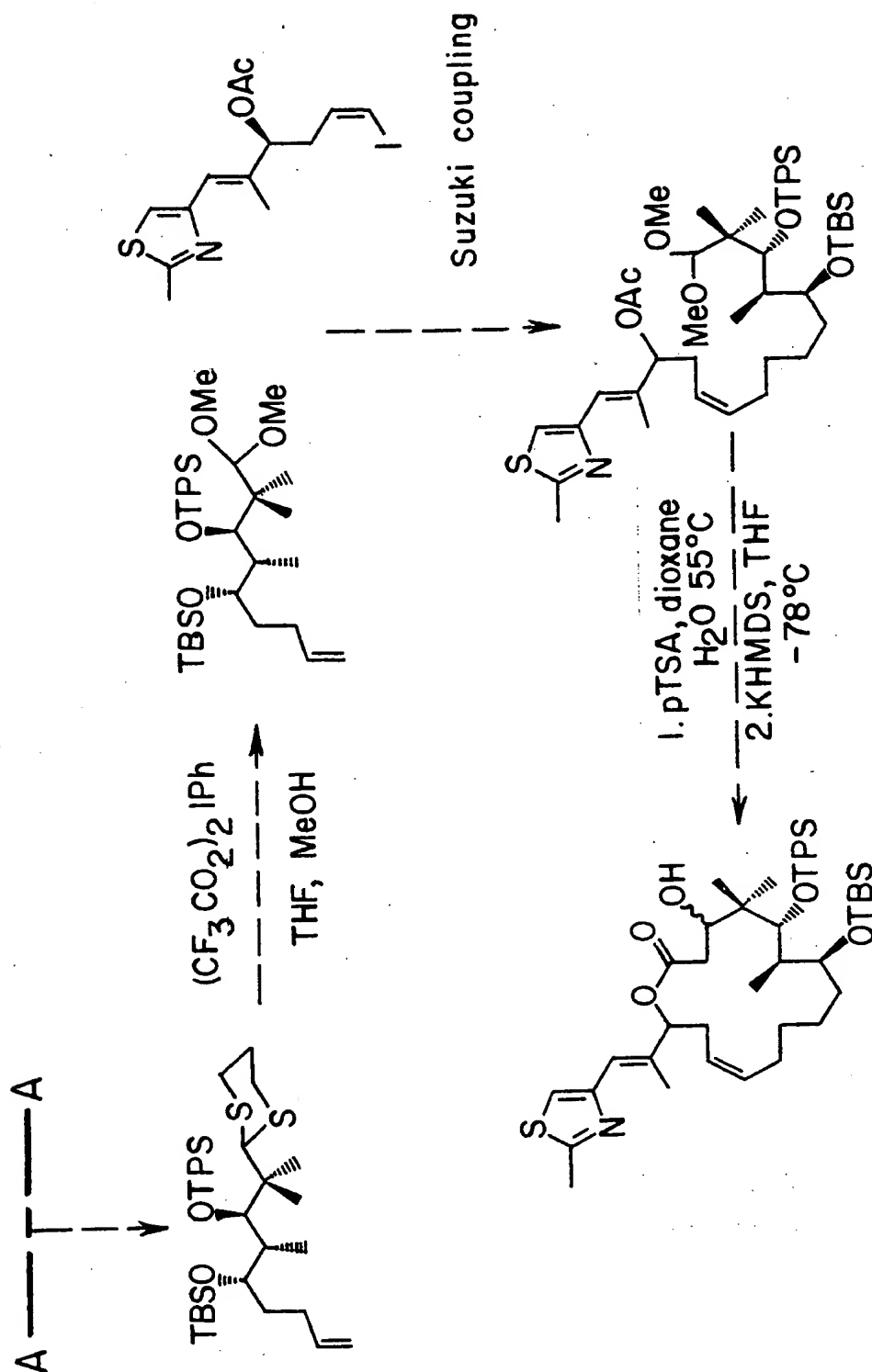
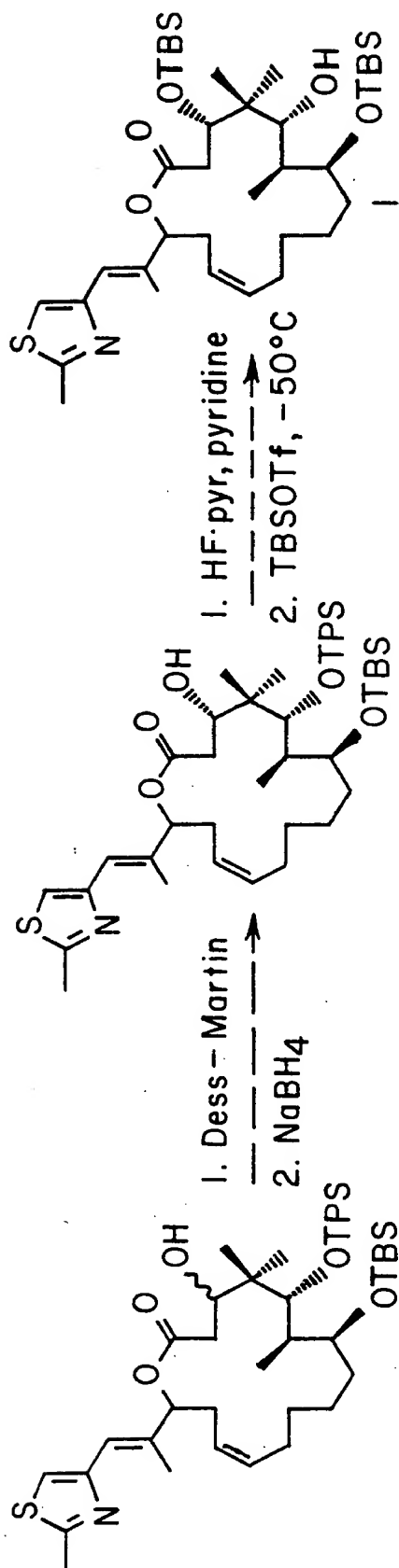
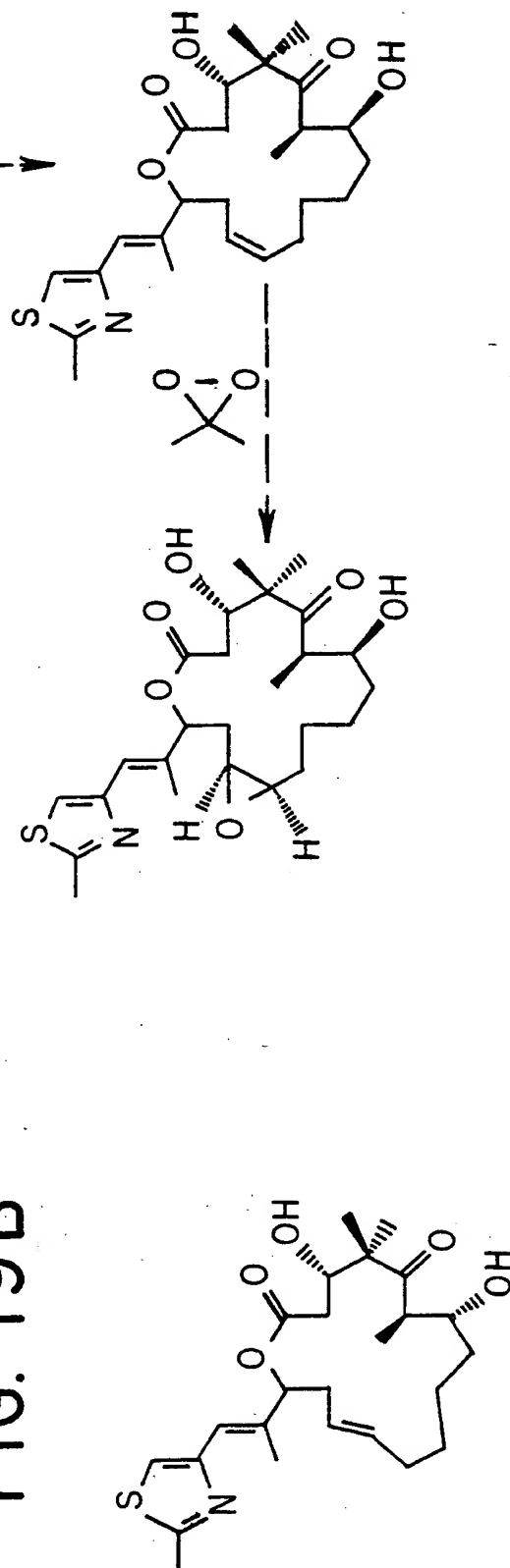


FIG. 19A



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FIG. 19B



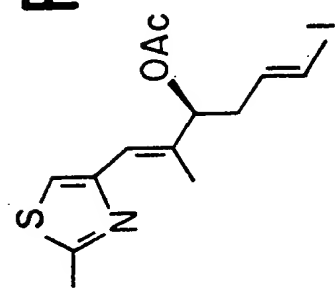


FIG. 19C

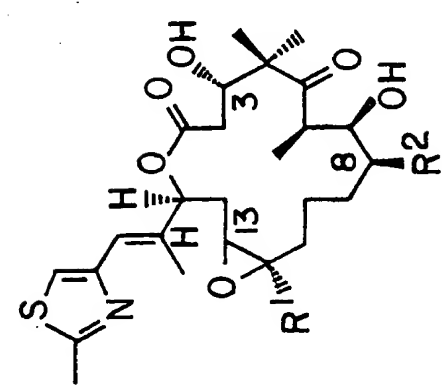


FIG. 20A

$R^1 = H, R^2 = Me$; epothilone A
 $R^1 = R^2 = Me$; epothilone B
 $R^1 = R^2 = H$; C₈-desmethyl-epothilone A (3D)

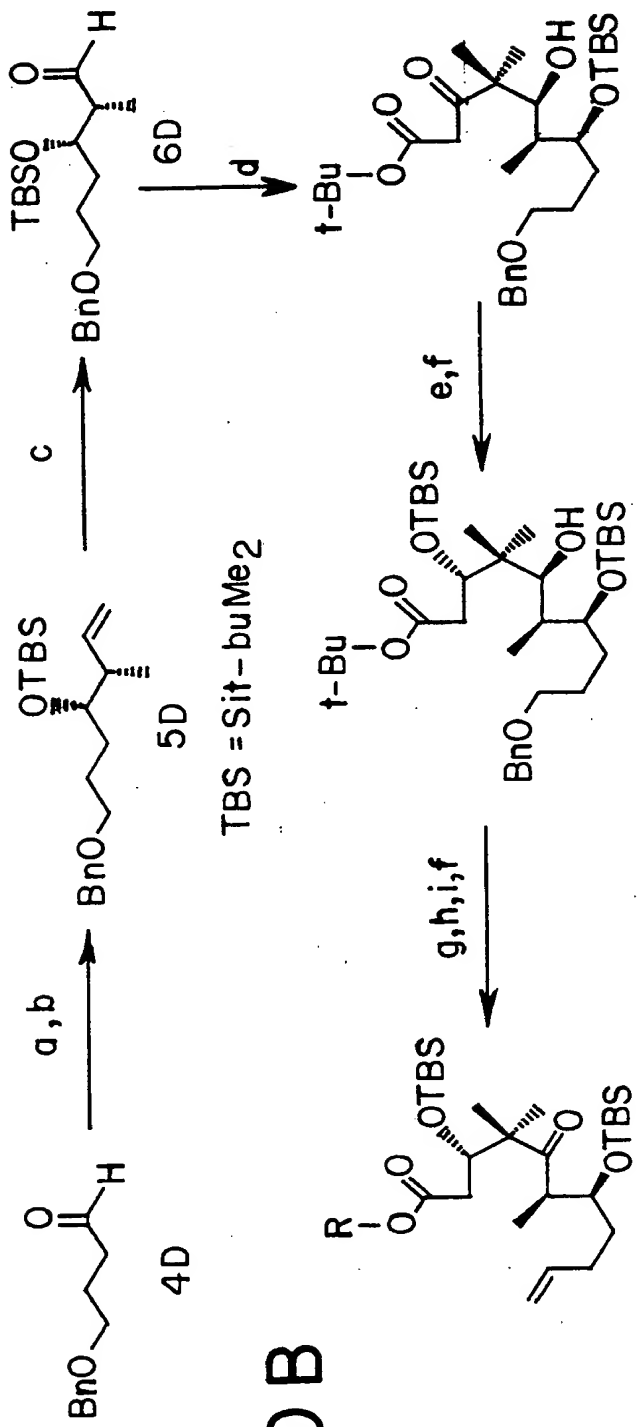


FIG. 20B

$9D \# R = t\text{-butyl}$
 $10D \# R = TBS$

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FIG. 21

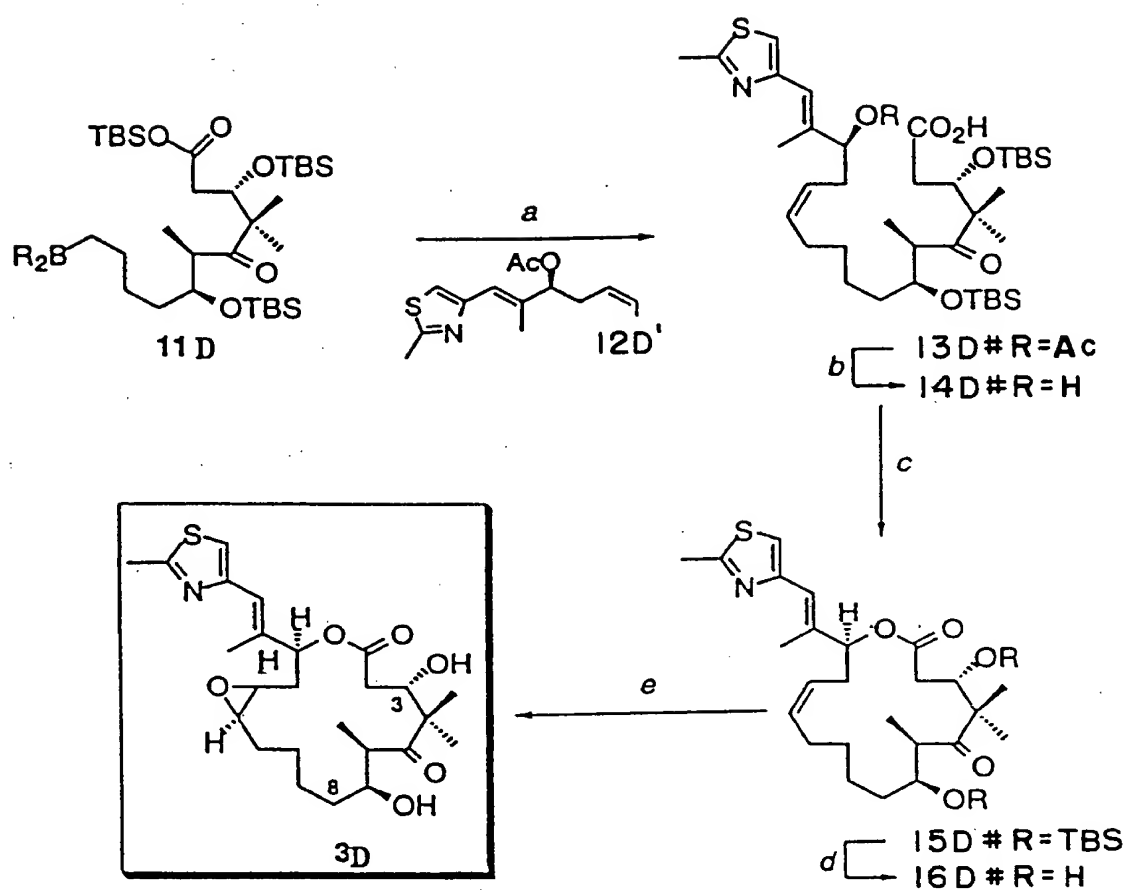


FIG. 22A

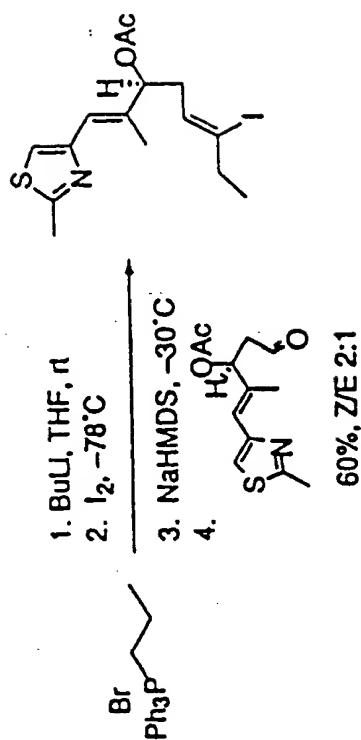
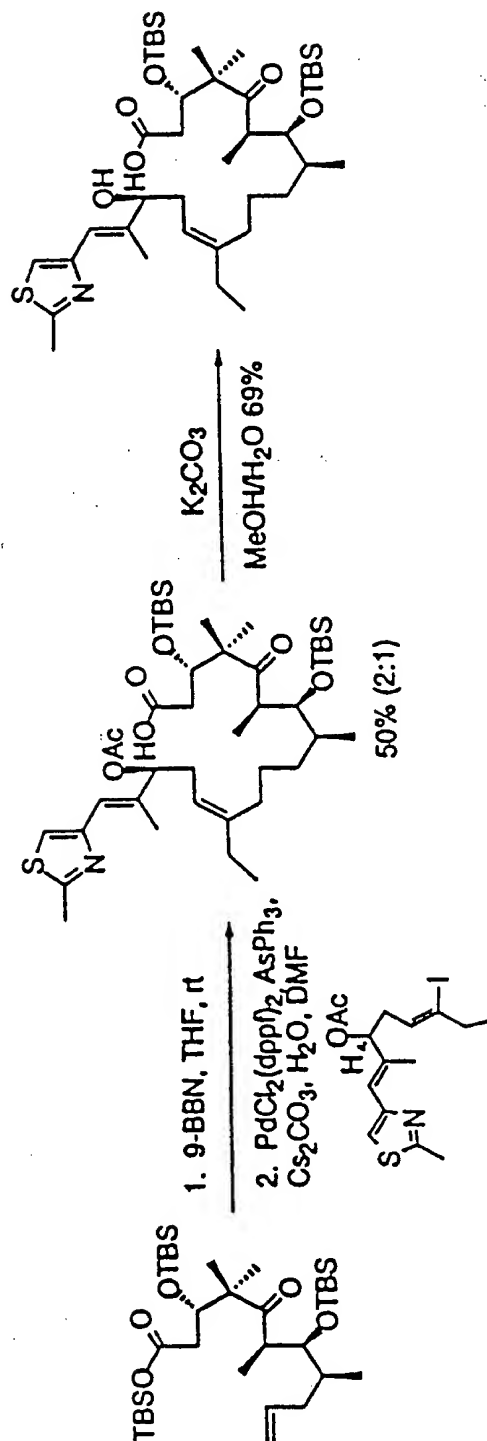


FIG. 22B



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FIG. 22C

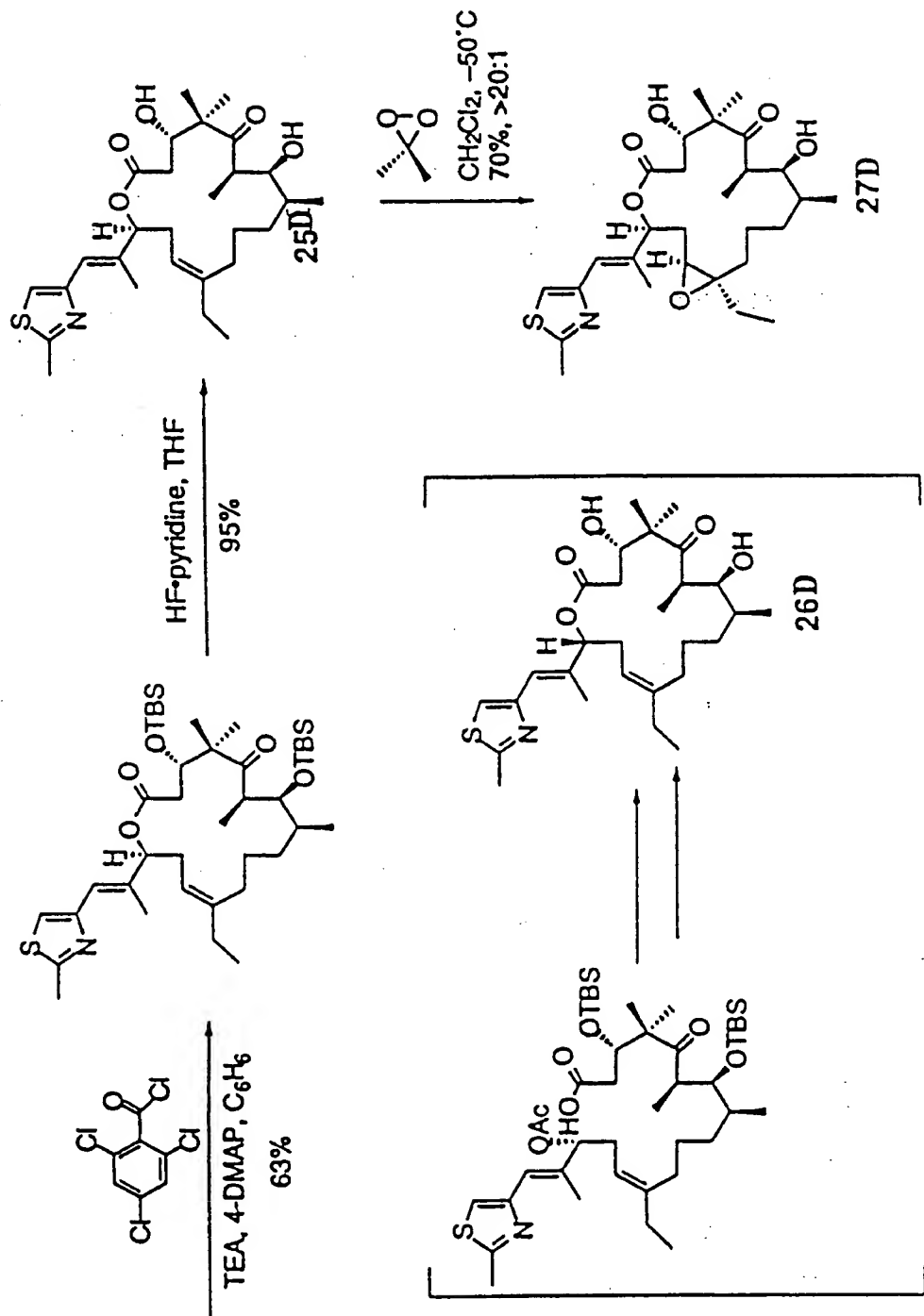


FIG. 23A

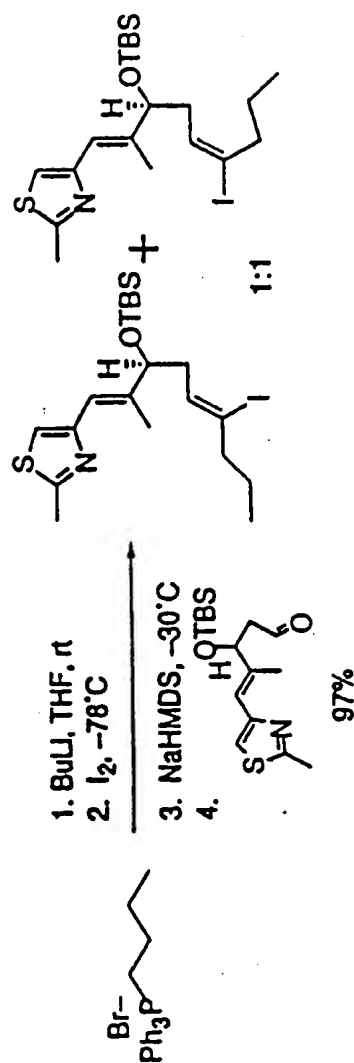


FIG. 23B

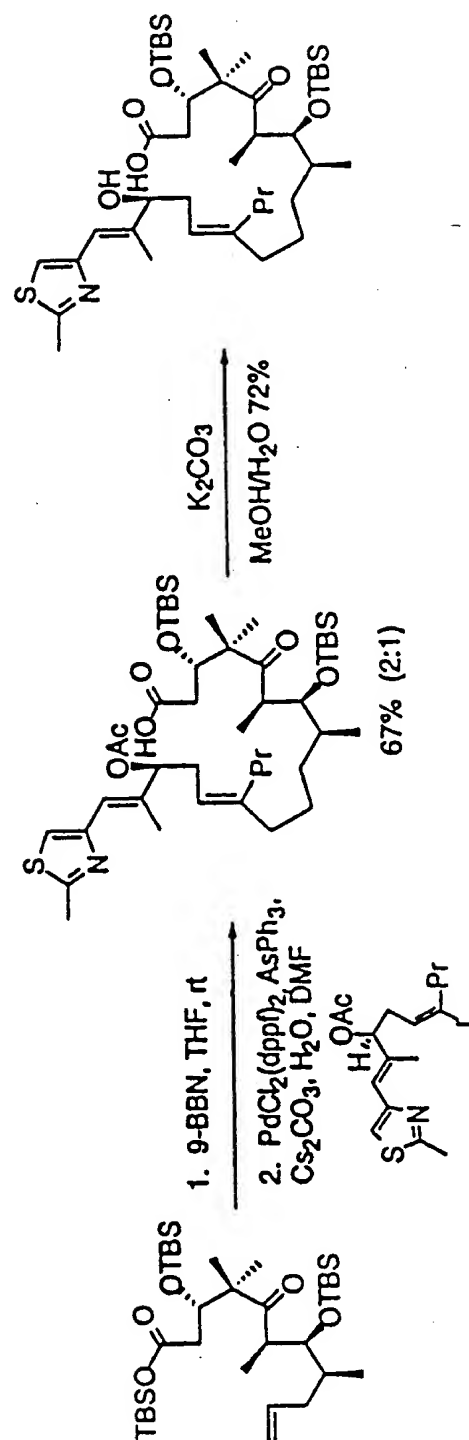
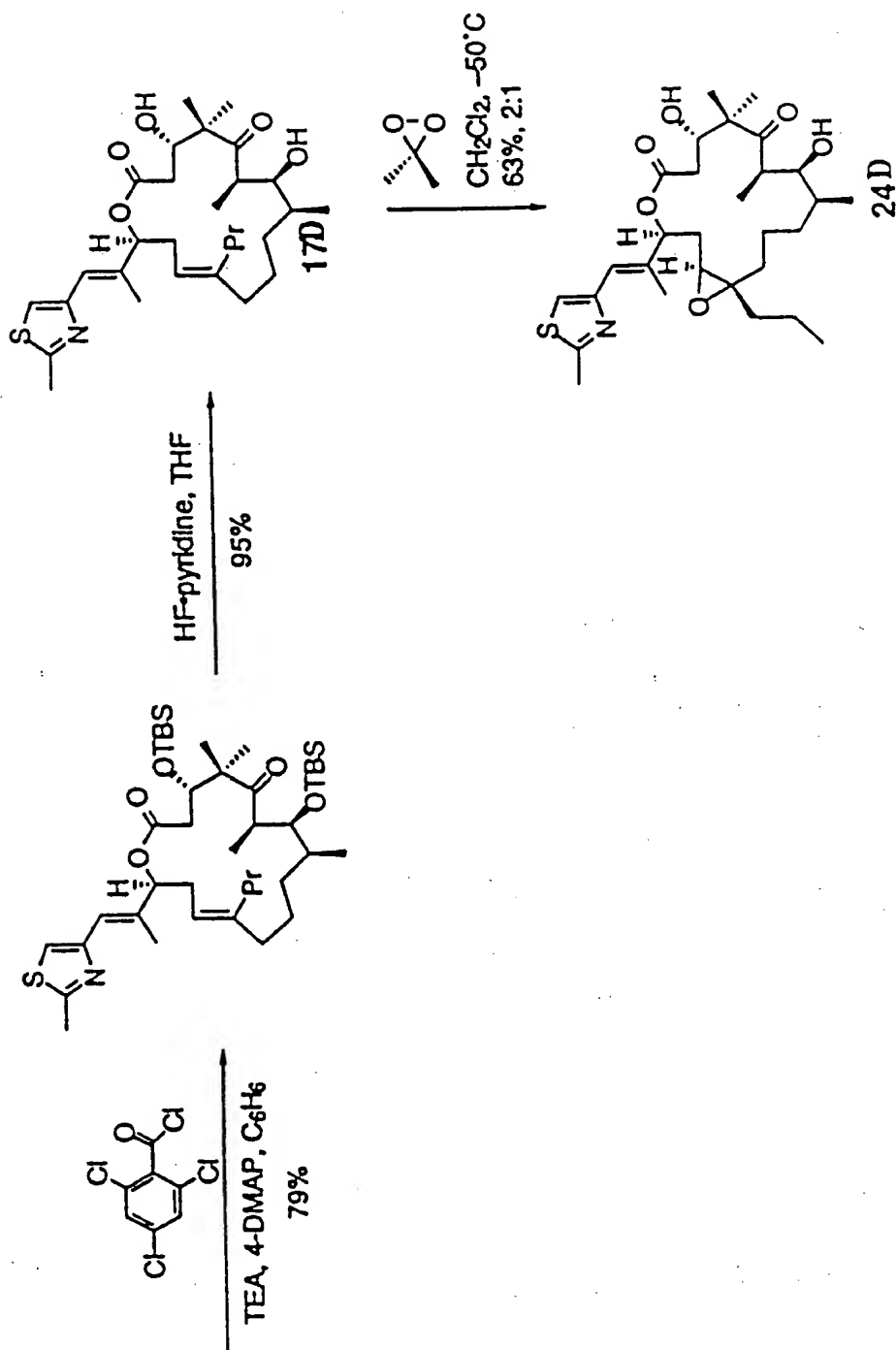
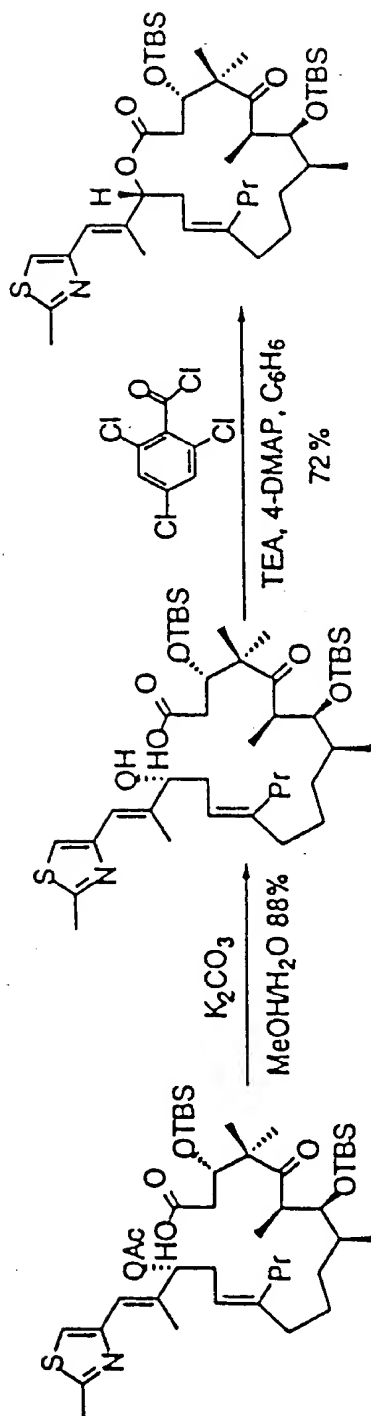


FIG. 23C



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FIG. 24A



minor product from suzuki
coupling reaction

FIG. 24B

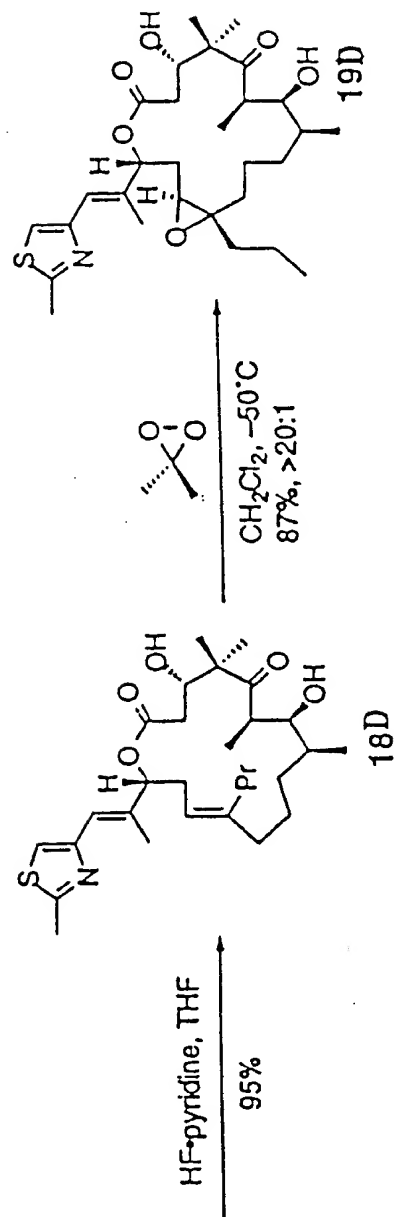


FIG. 25A

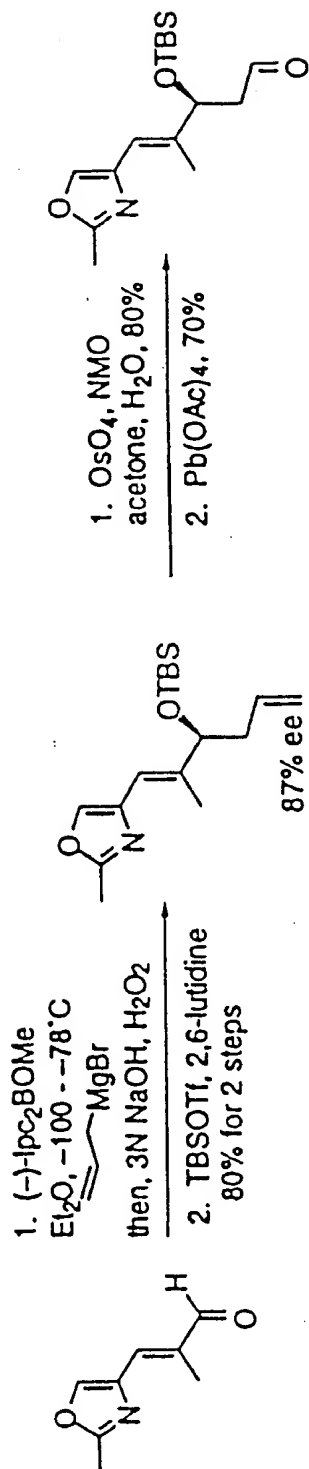


FIG. 25B

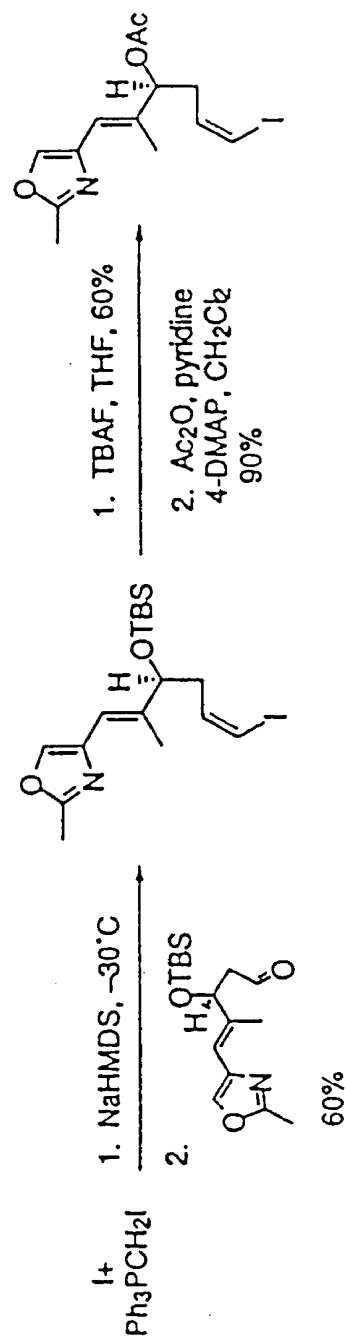


FIG. 25C

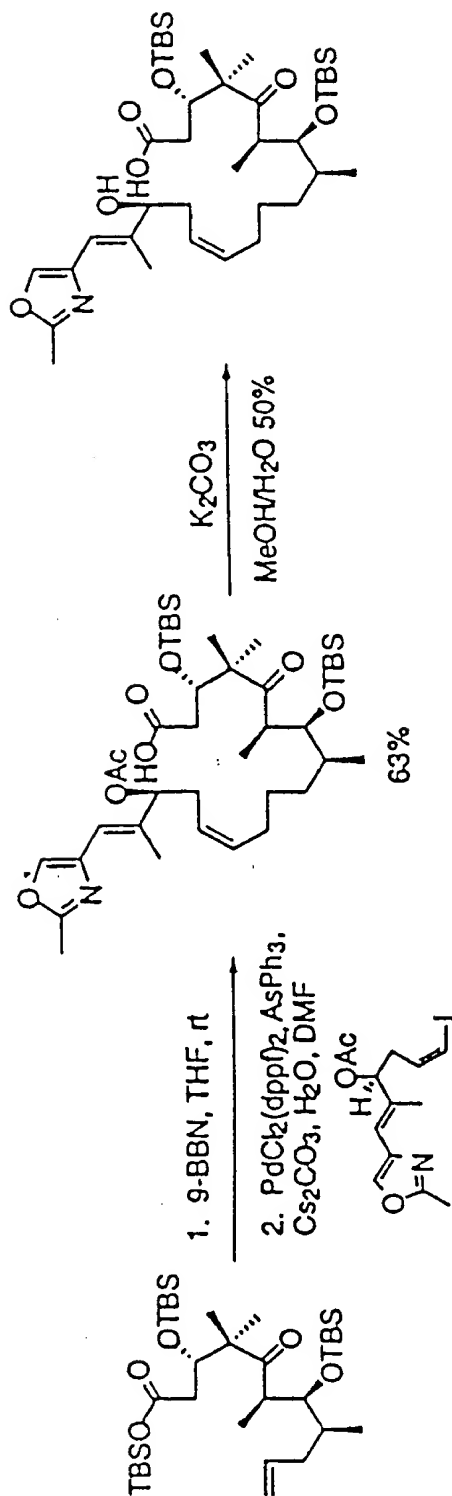


FIG. 25D

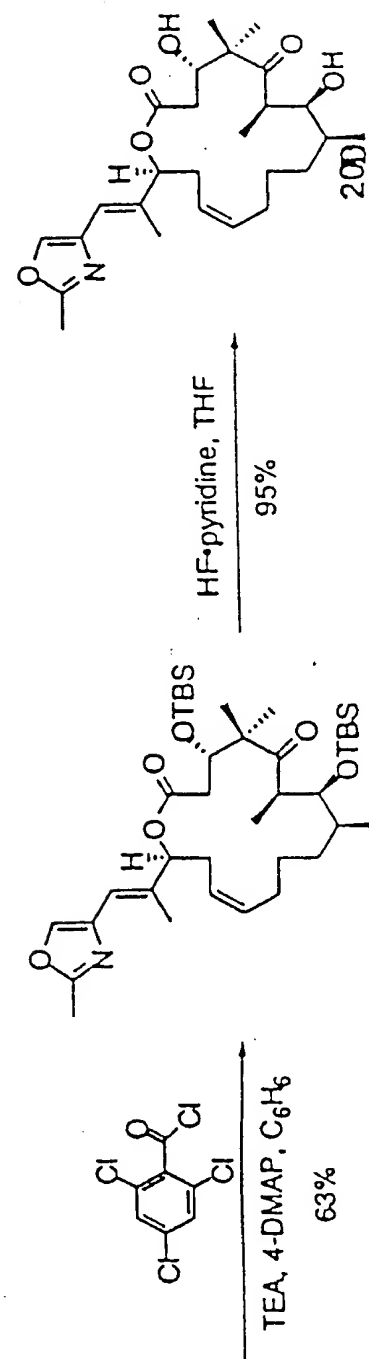


FIG. 26A

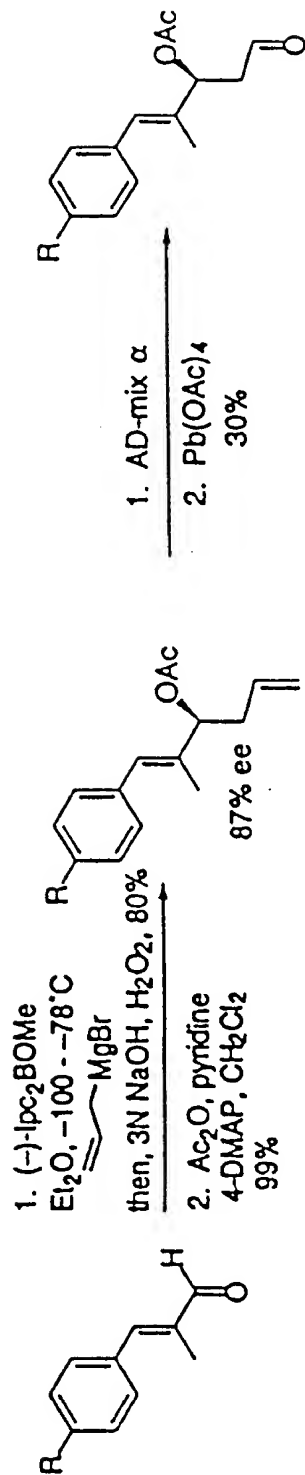
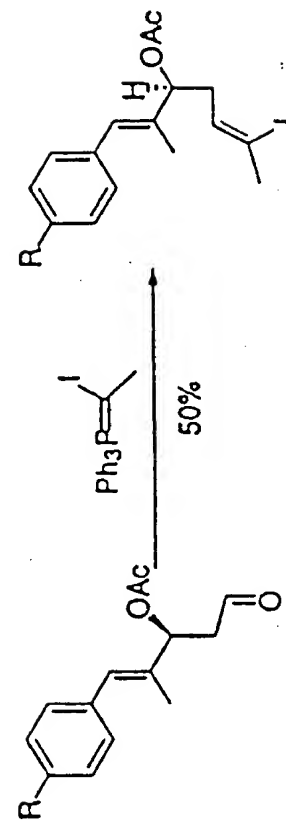


FIG. 26B



R = H, F, CF₃
R=H is the only compound
completed, F and CF₃ are nearly
completed

FIG. 26C

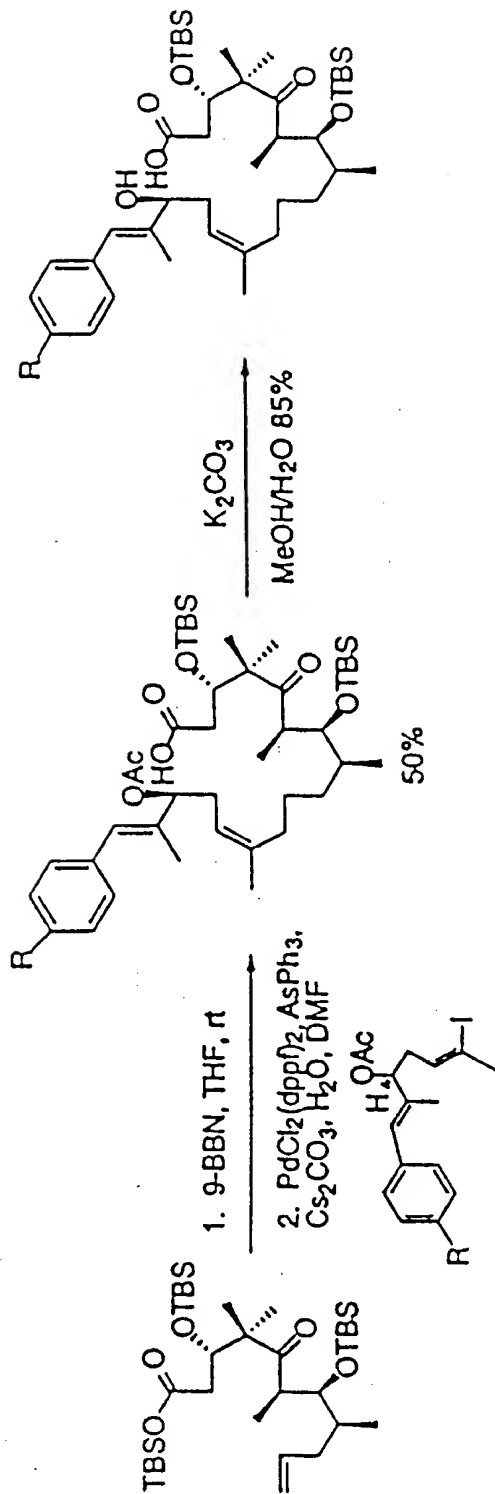
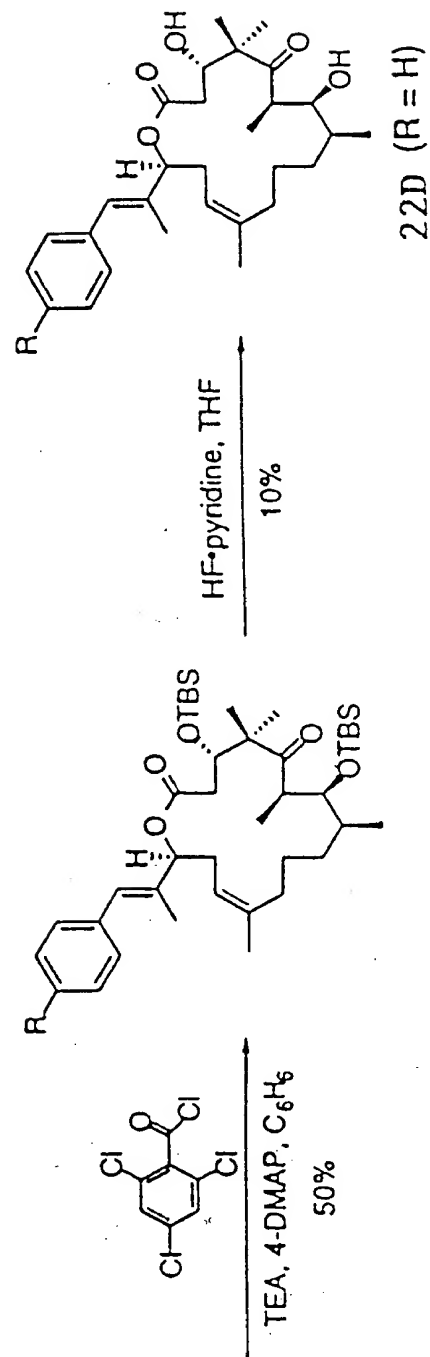


FIG. 26D



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FIG. 27A

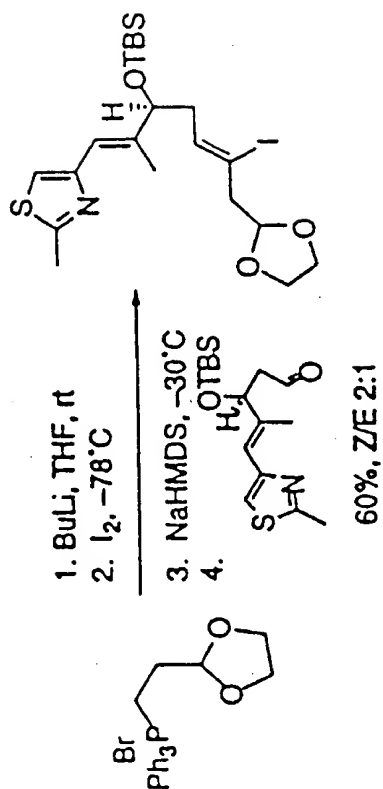


FIG. 27B

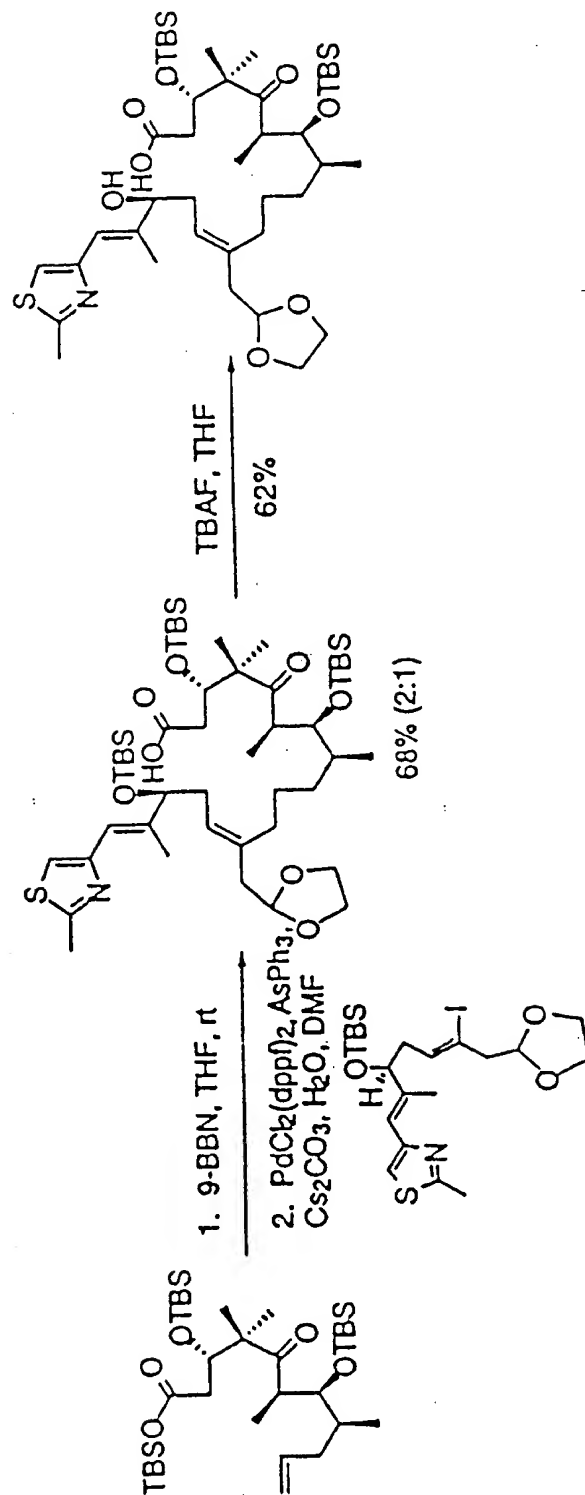
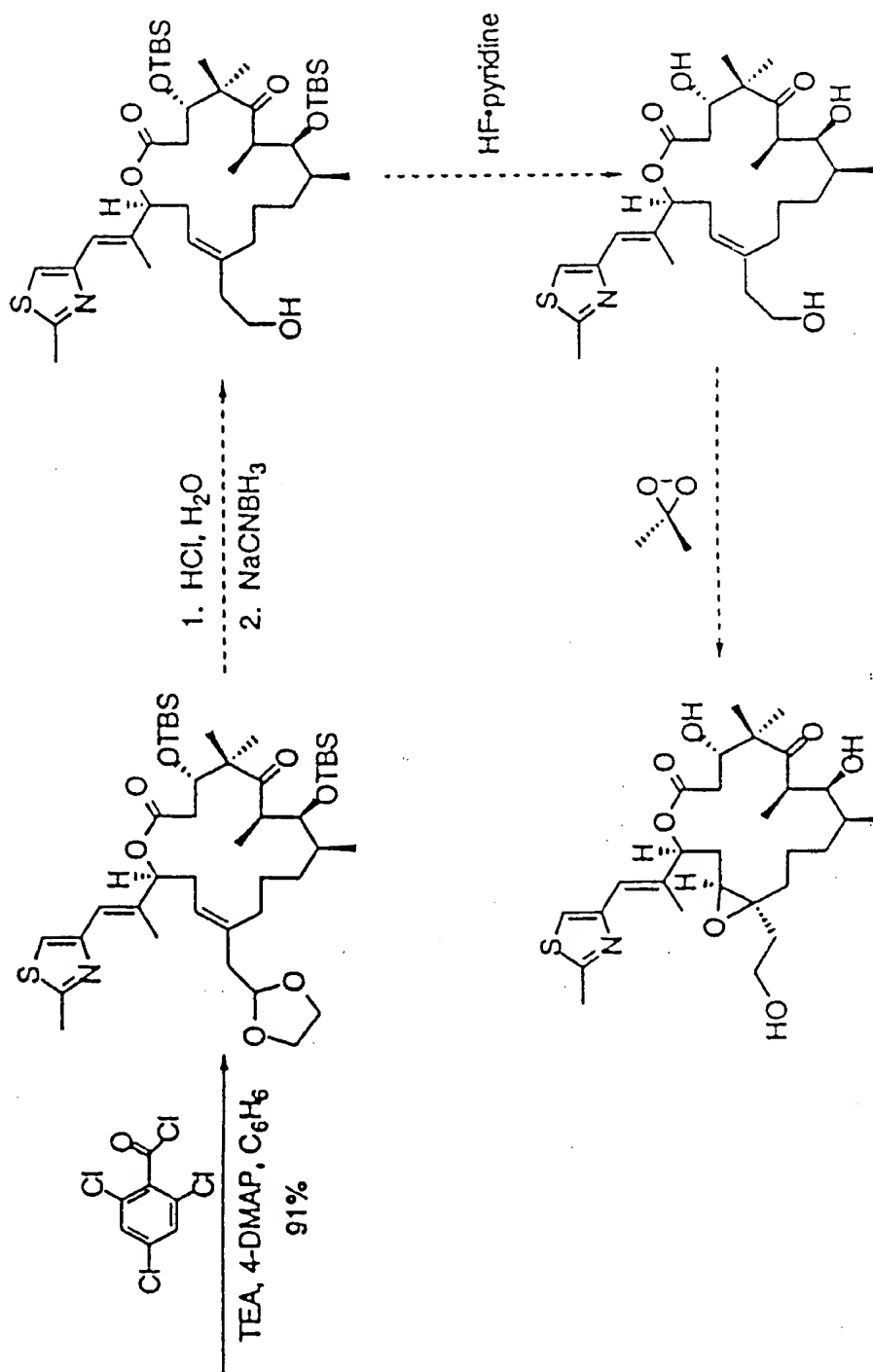
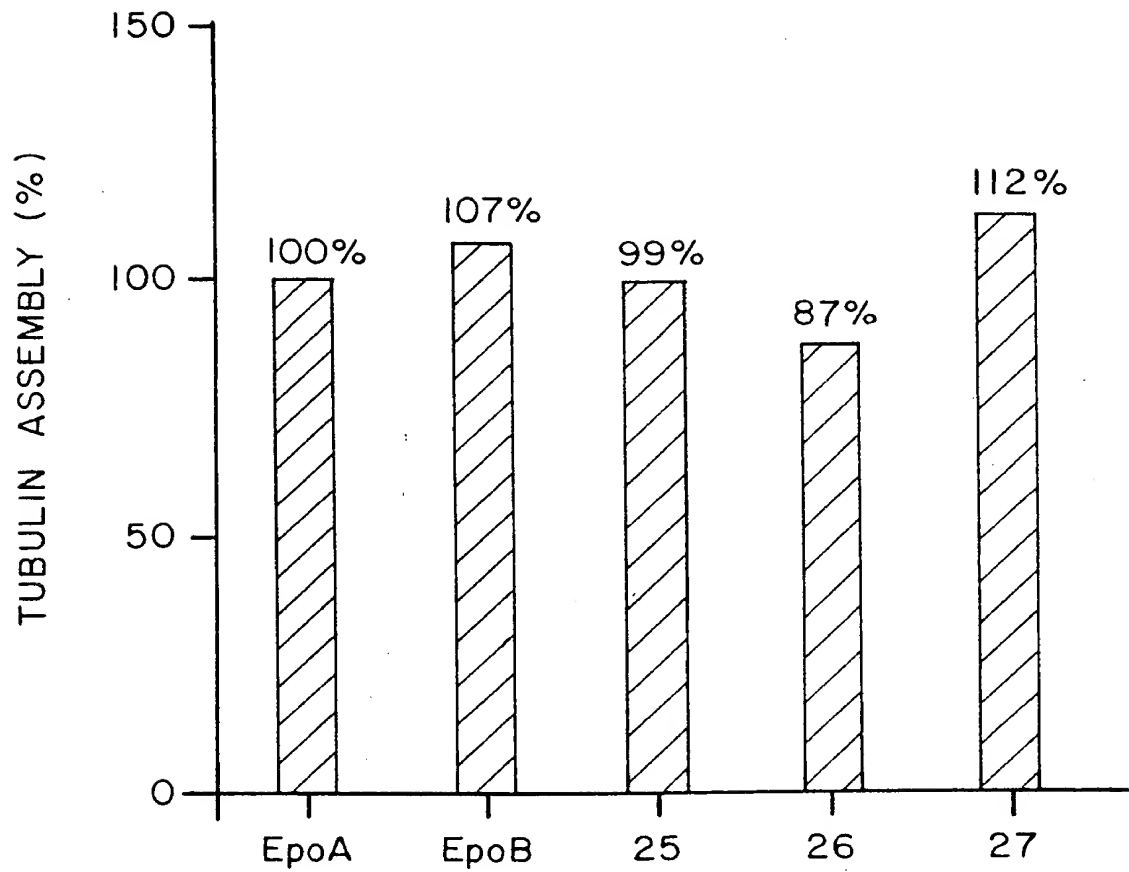


FIG. 27C



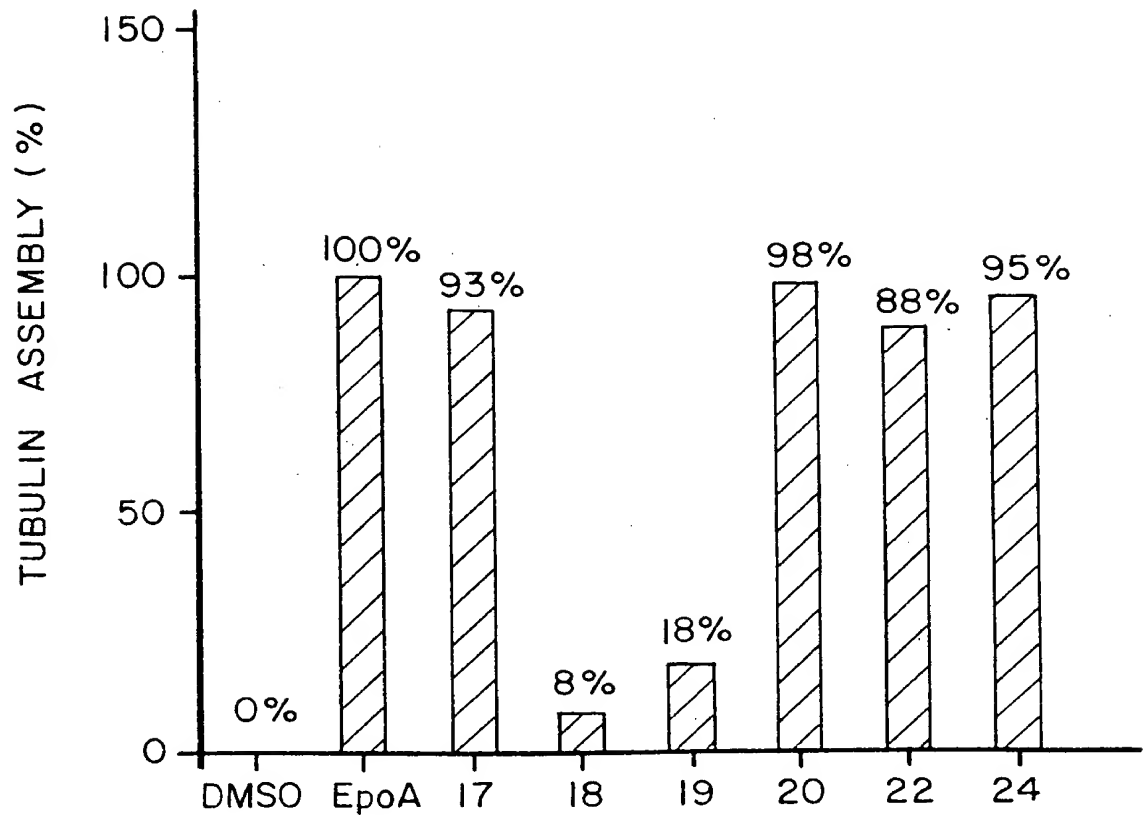
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FIG. 28A



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FIG. 28B



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FIG. 29

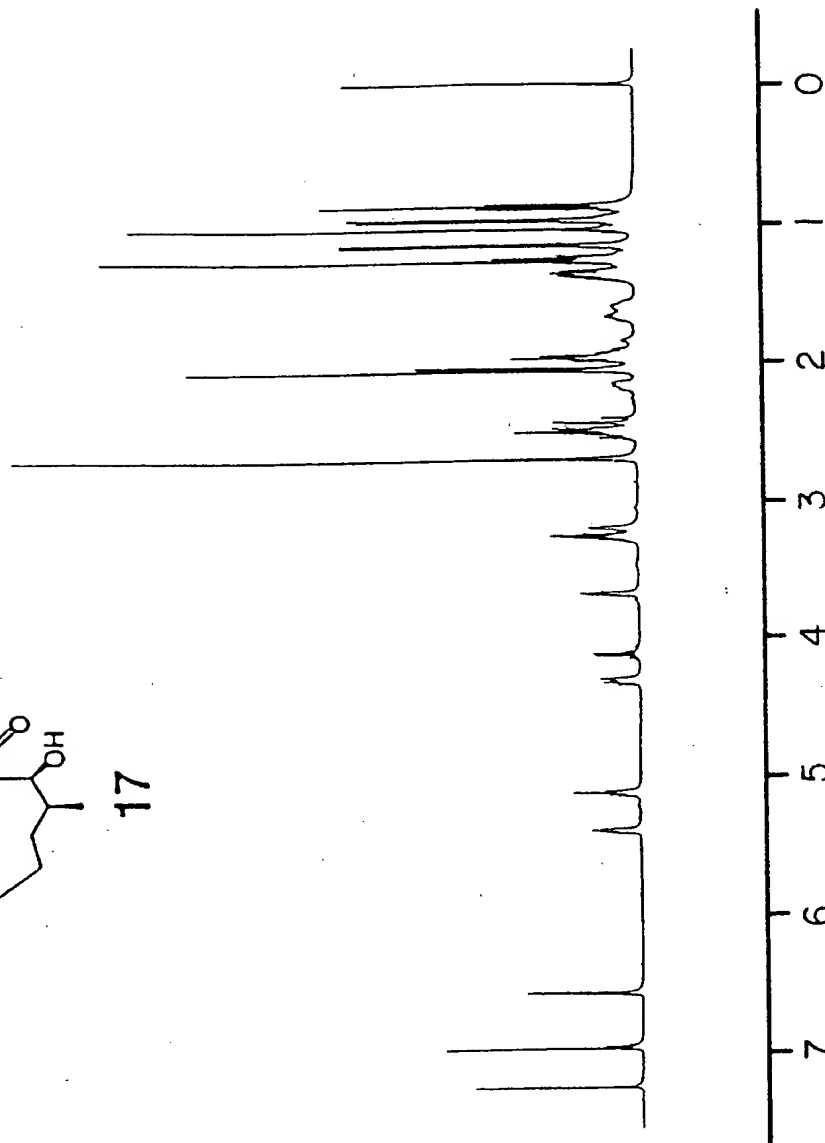
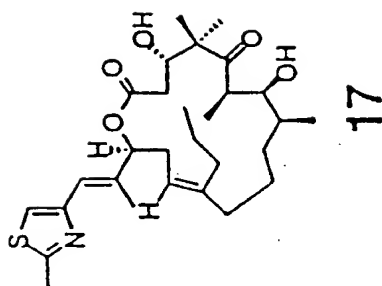
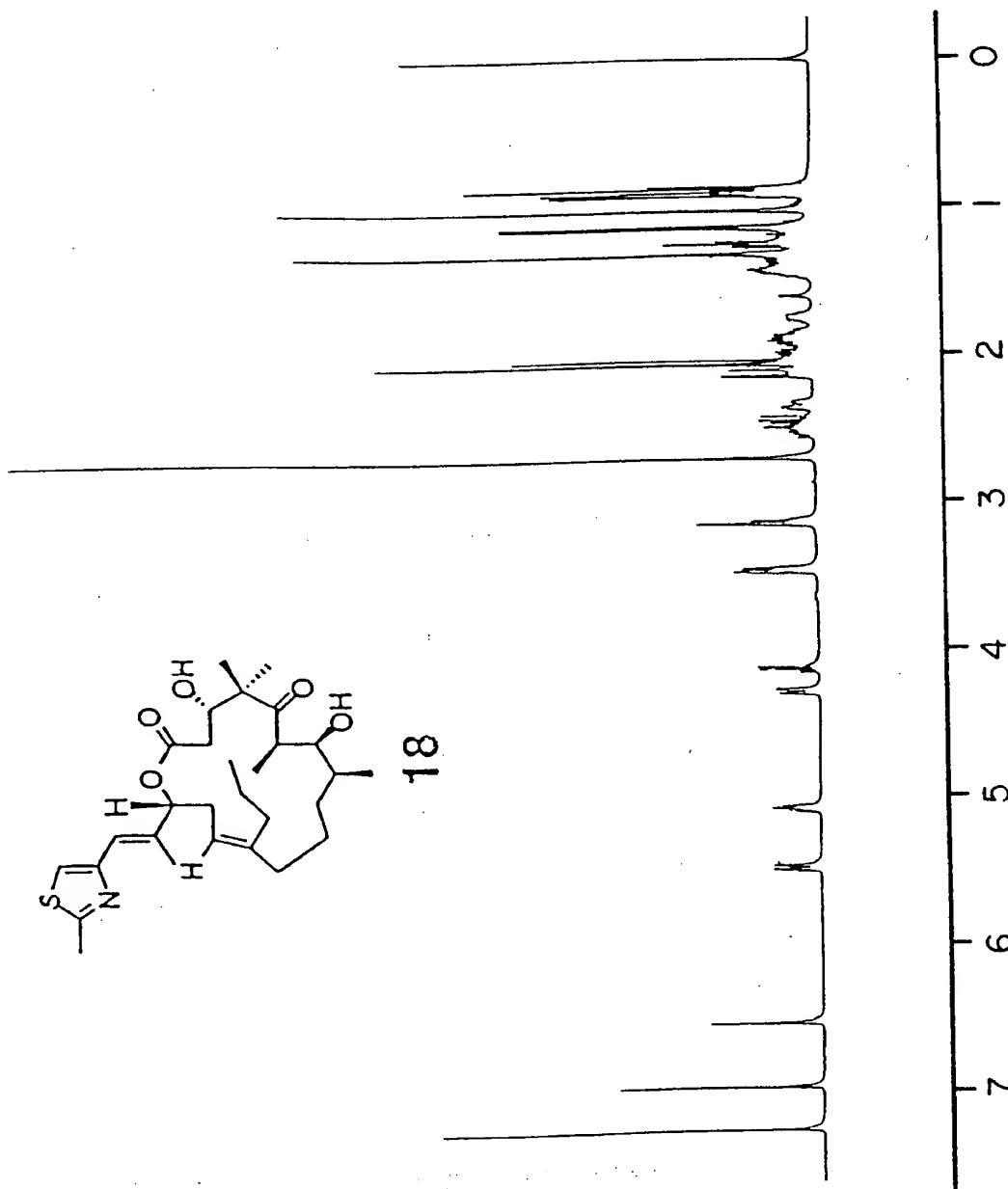
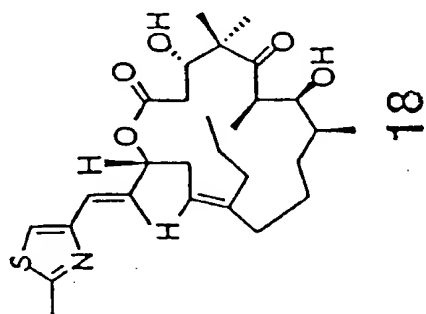
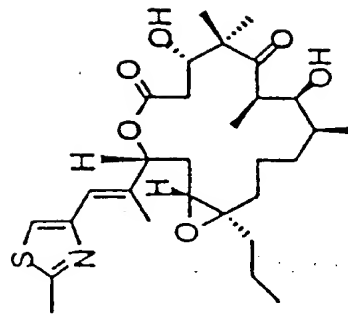


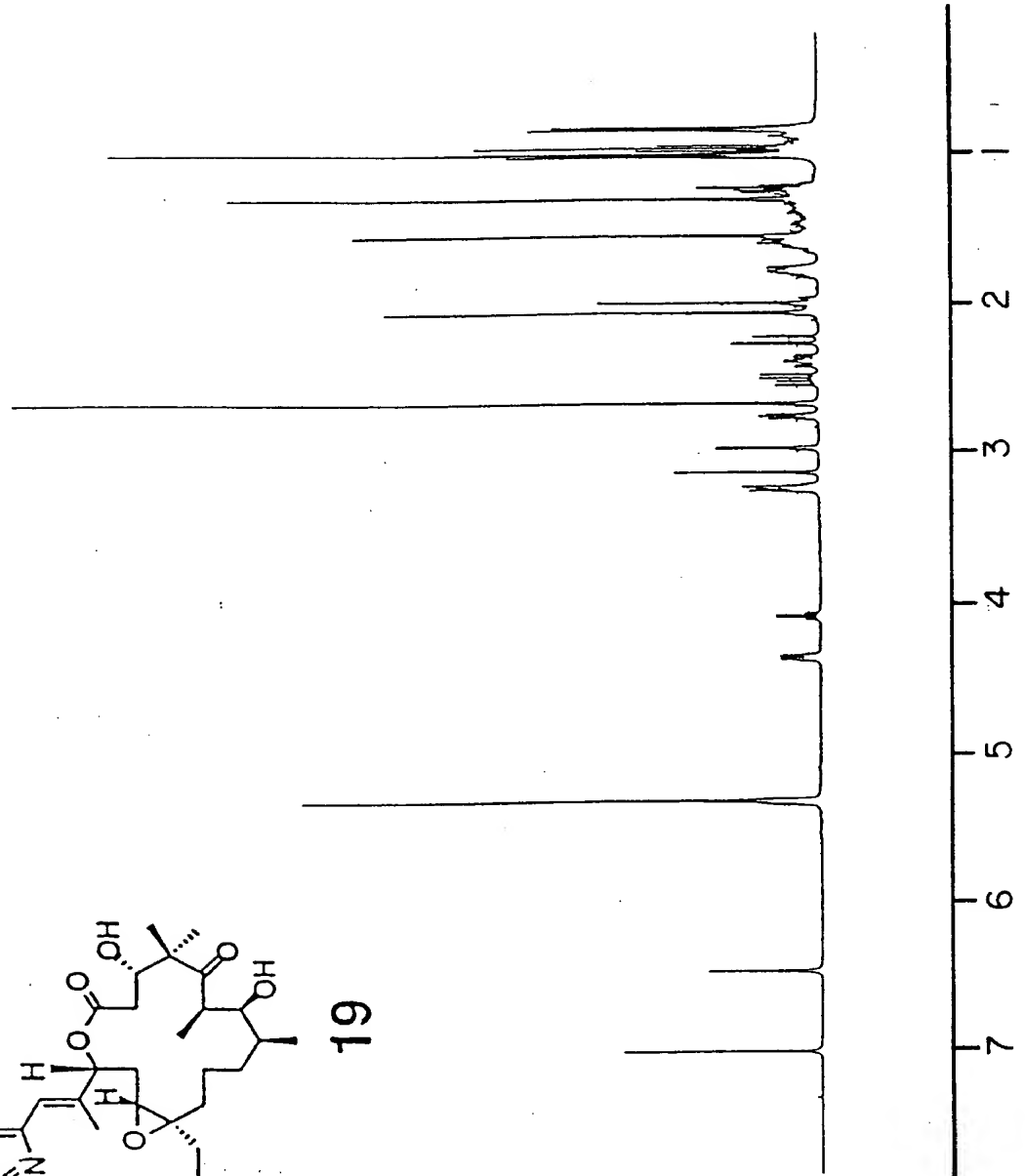
FIG. 30



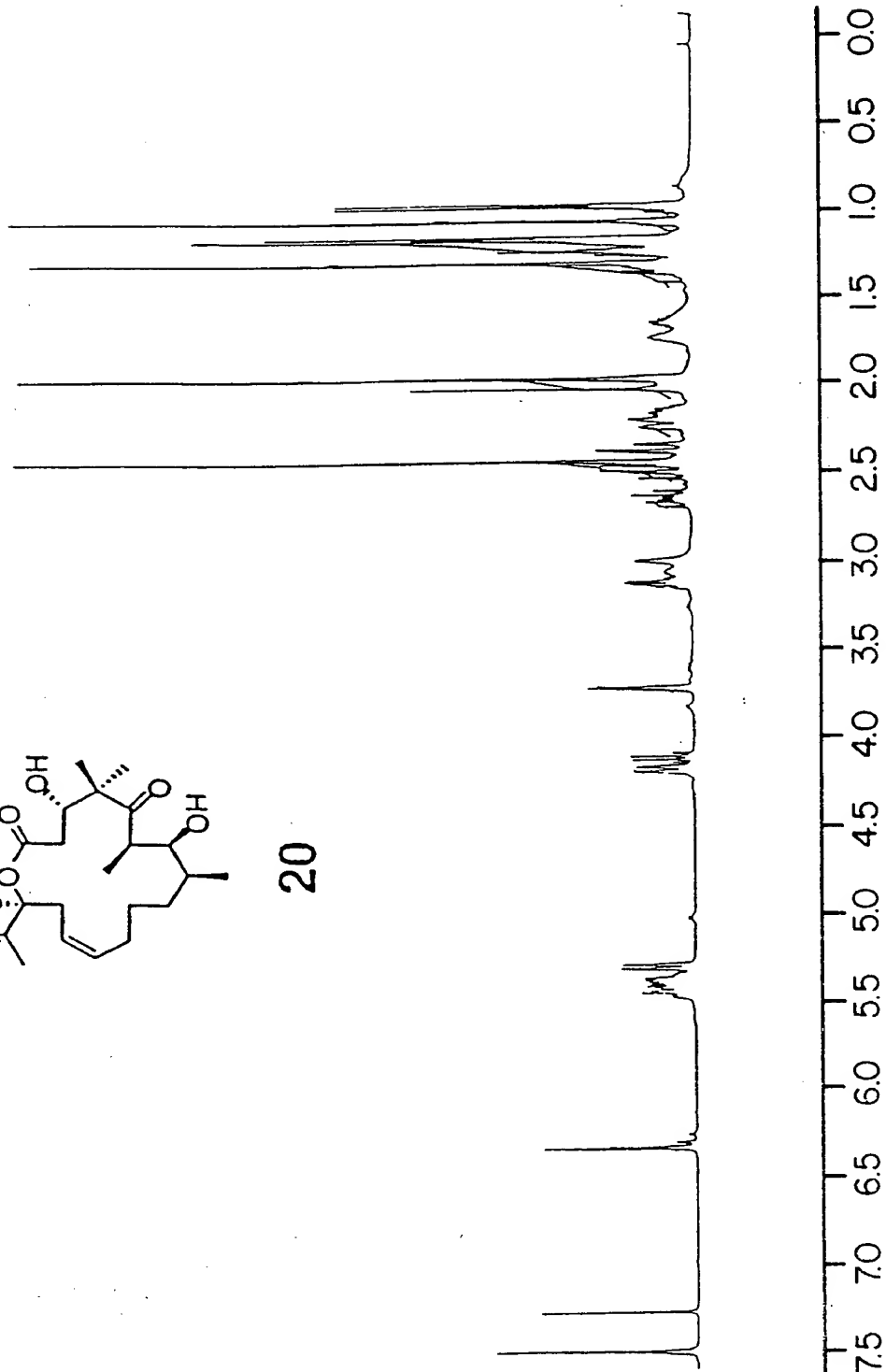
136 F



94

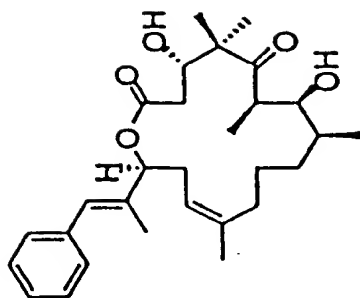


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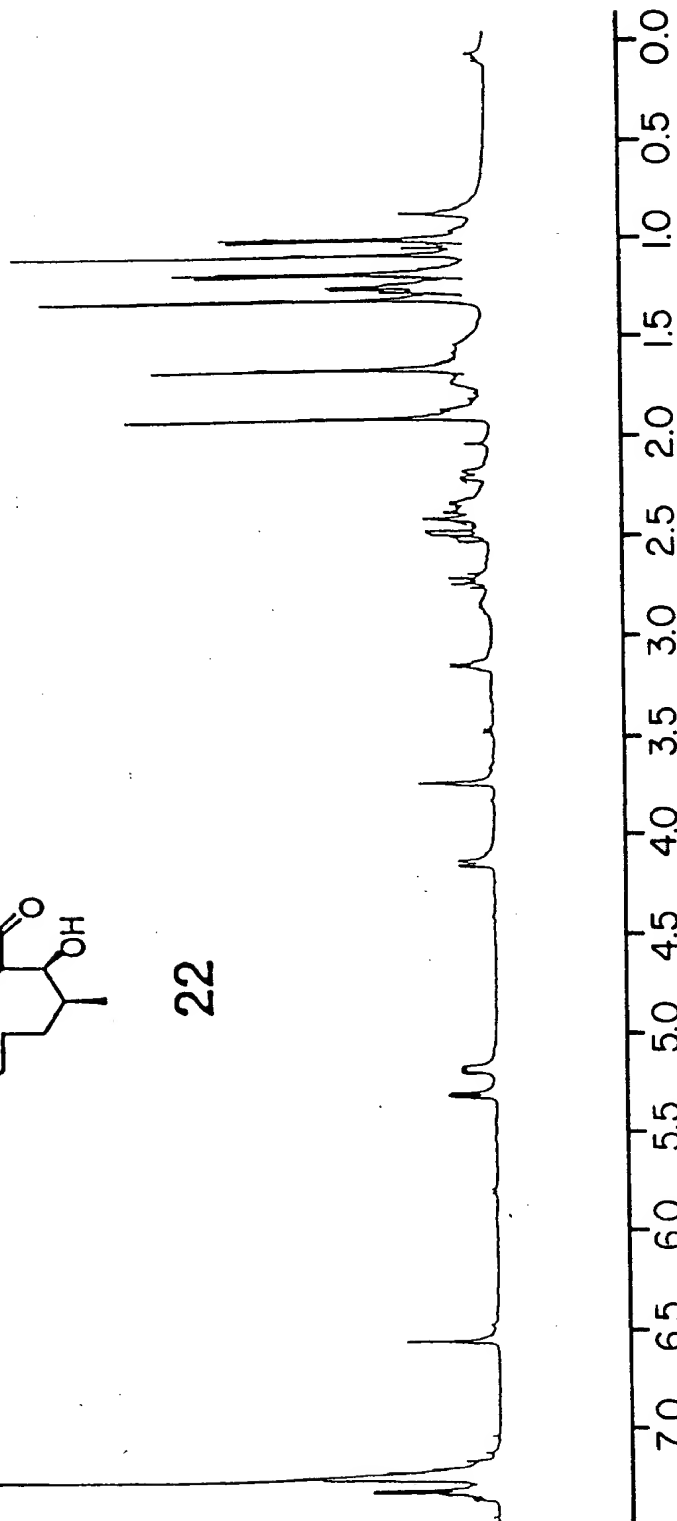


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FIG. 33



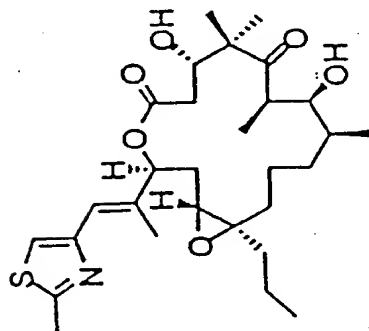
22



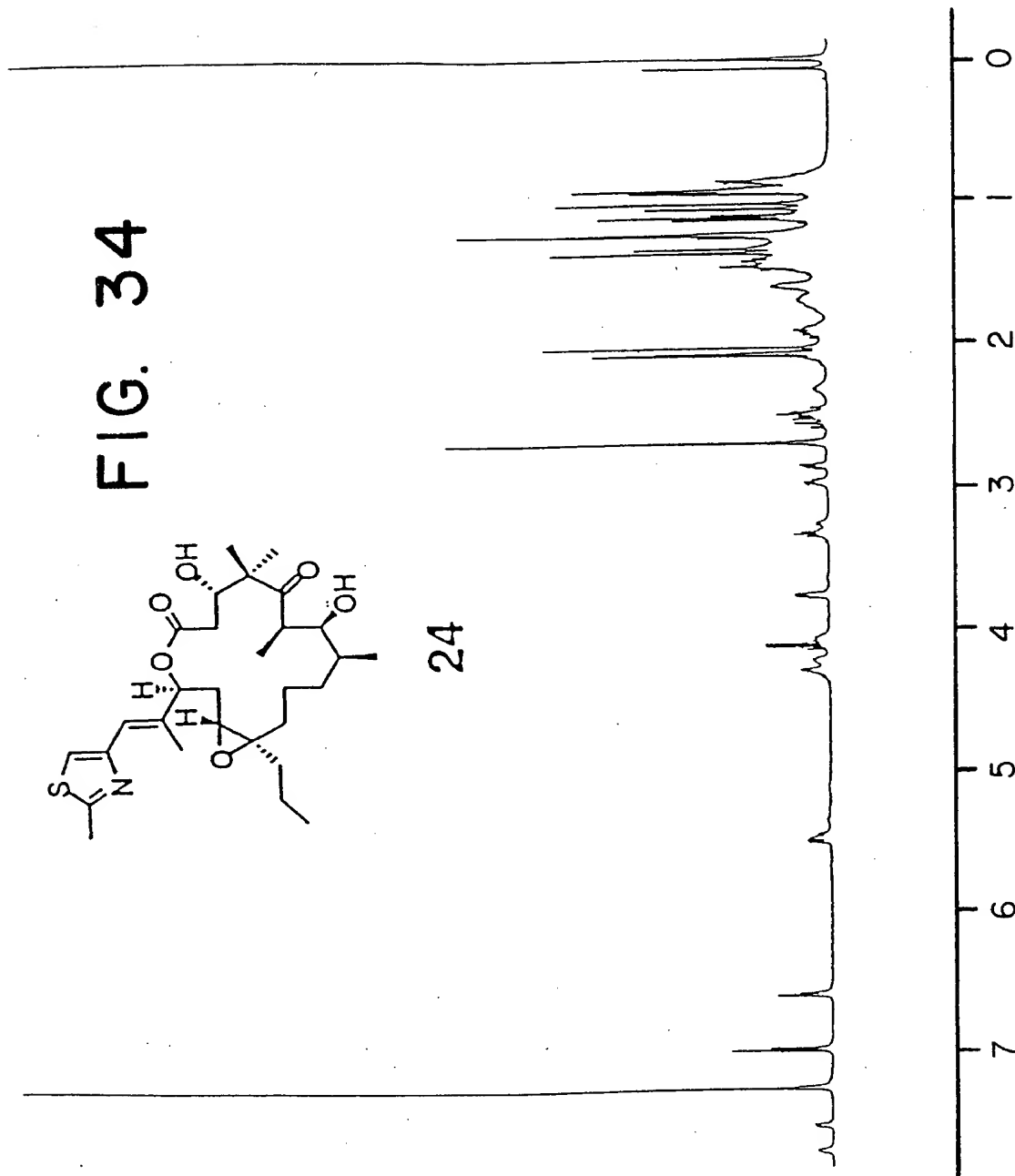
APPROVED	DATE	SUBCLASS
	10-17-68	DRAFTING



FIG. 34

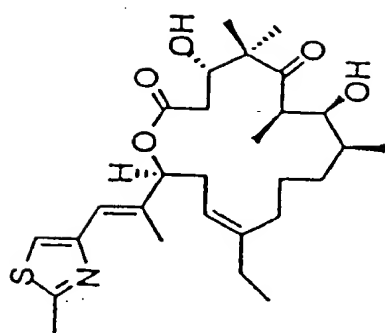


24



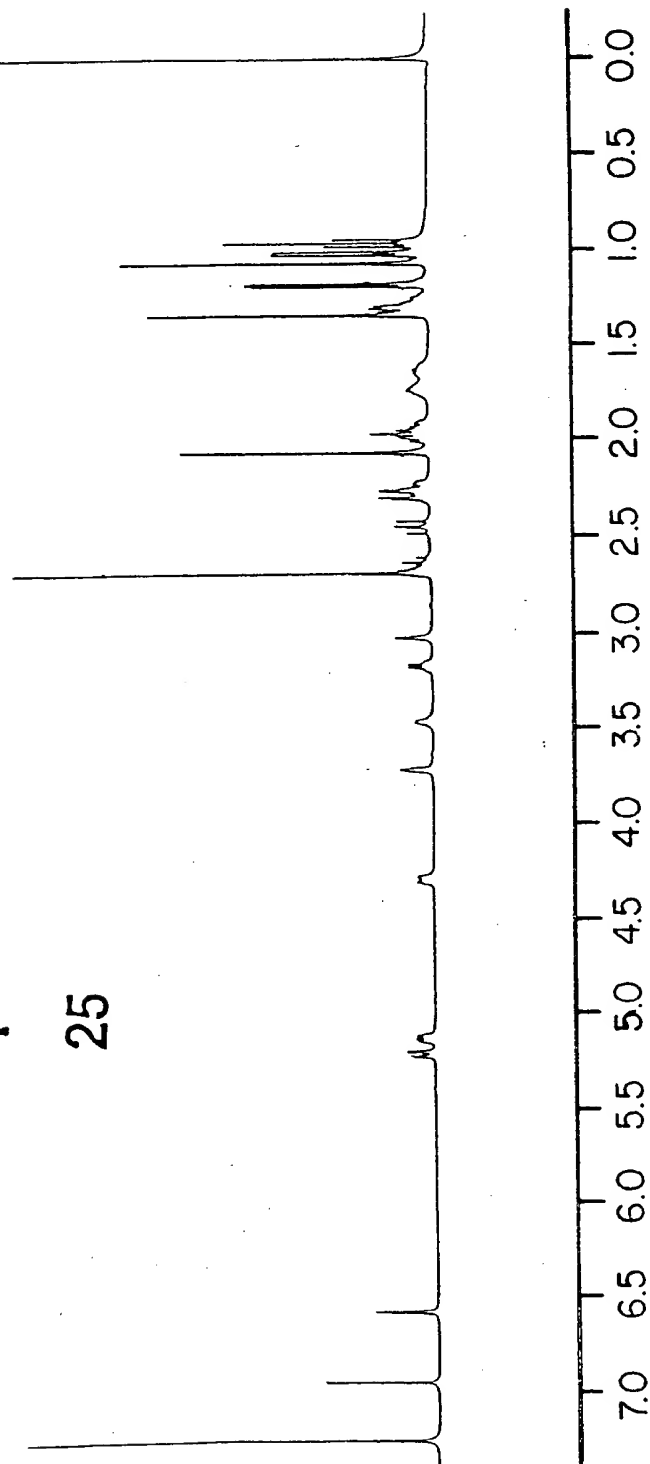
DATE	10/10/76
BY	W. J. GIBBS
DRUG	W. J. GIBBS
CLASS	W. J. GIBBS

FIG. 35



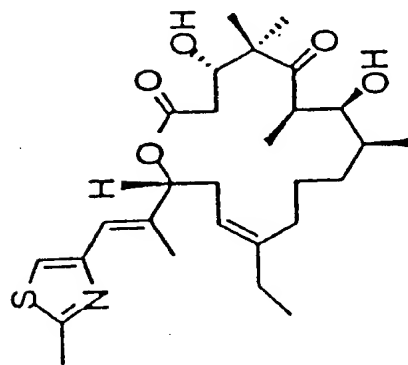
25

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FIG. 36



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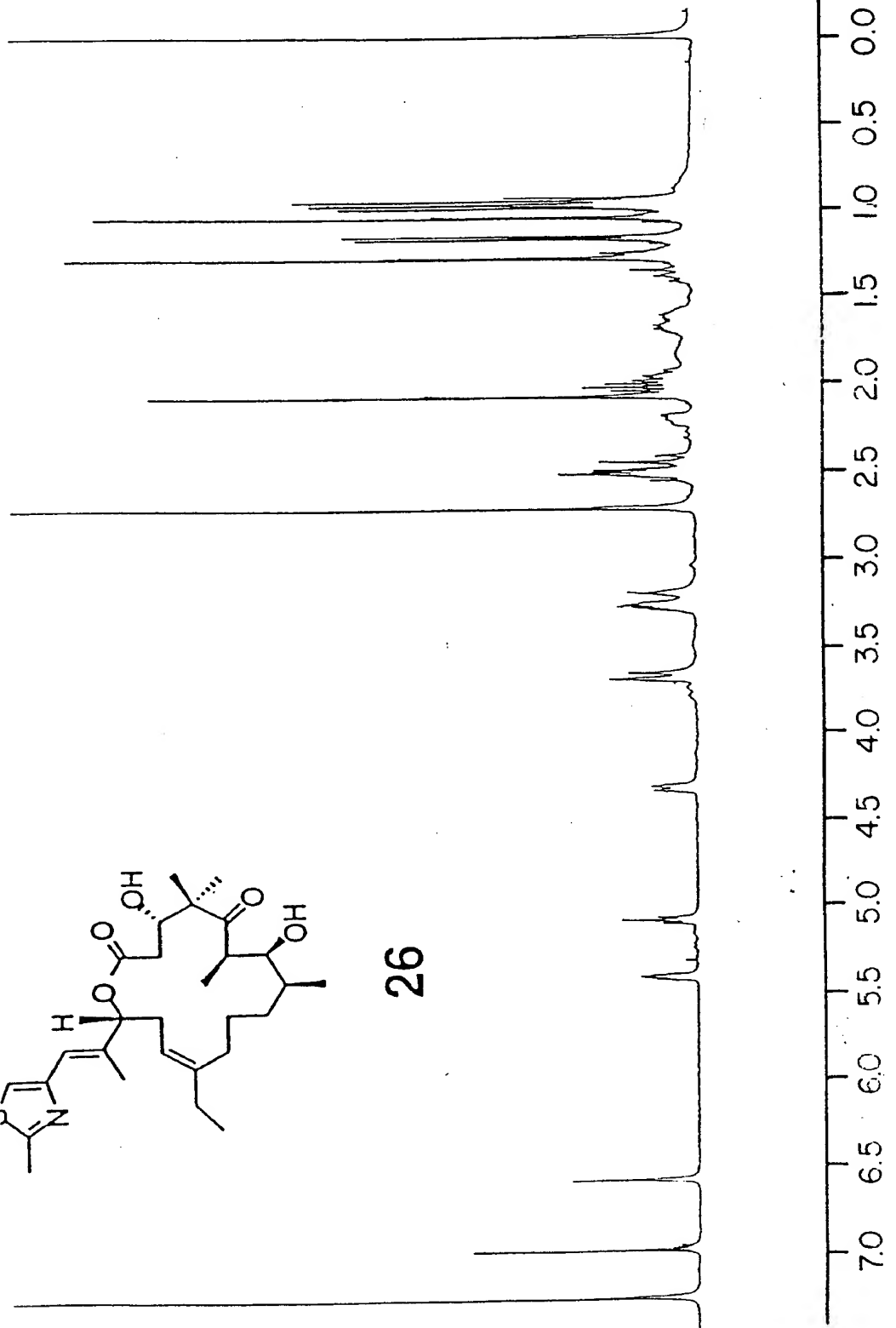
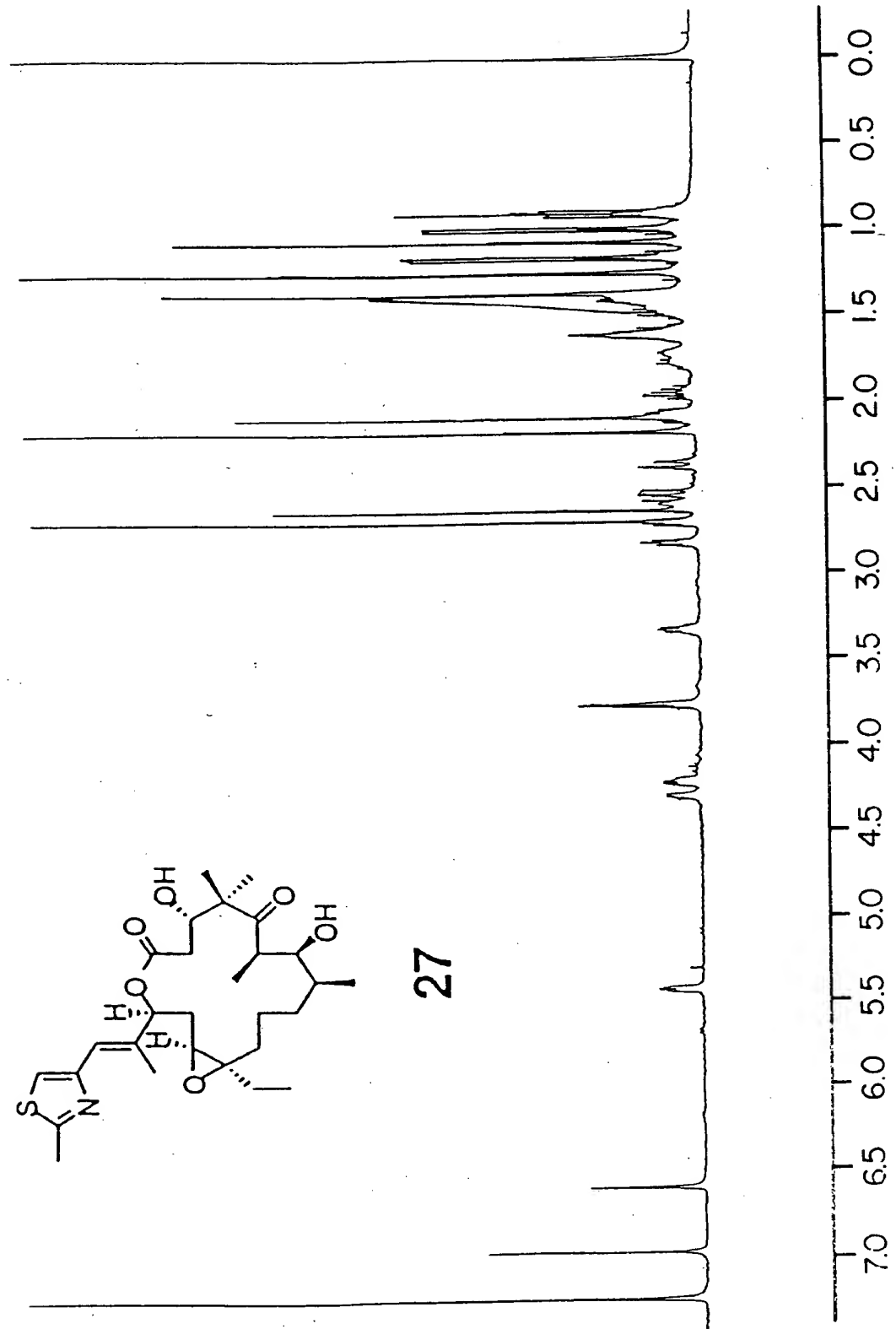


FIG.
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FIG. 37



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FIG. 38

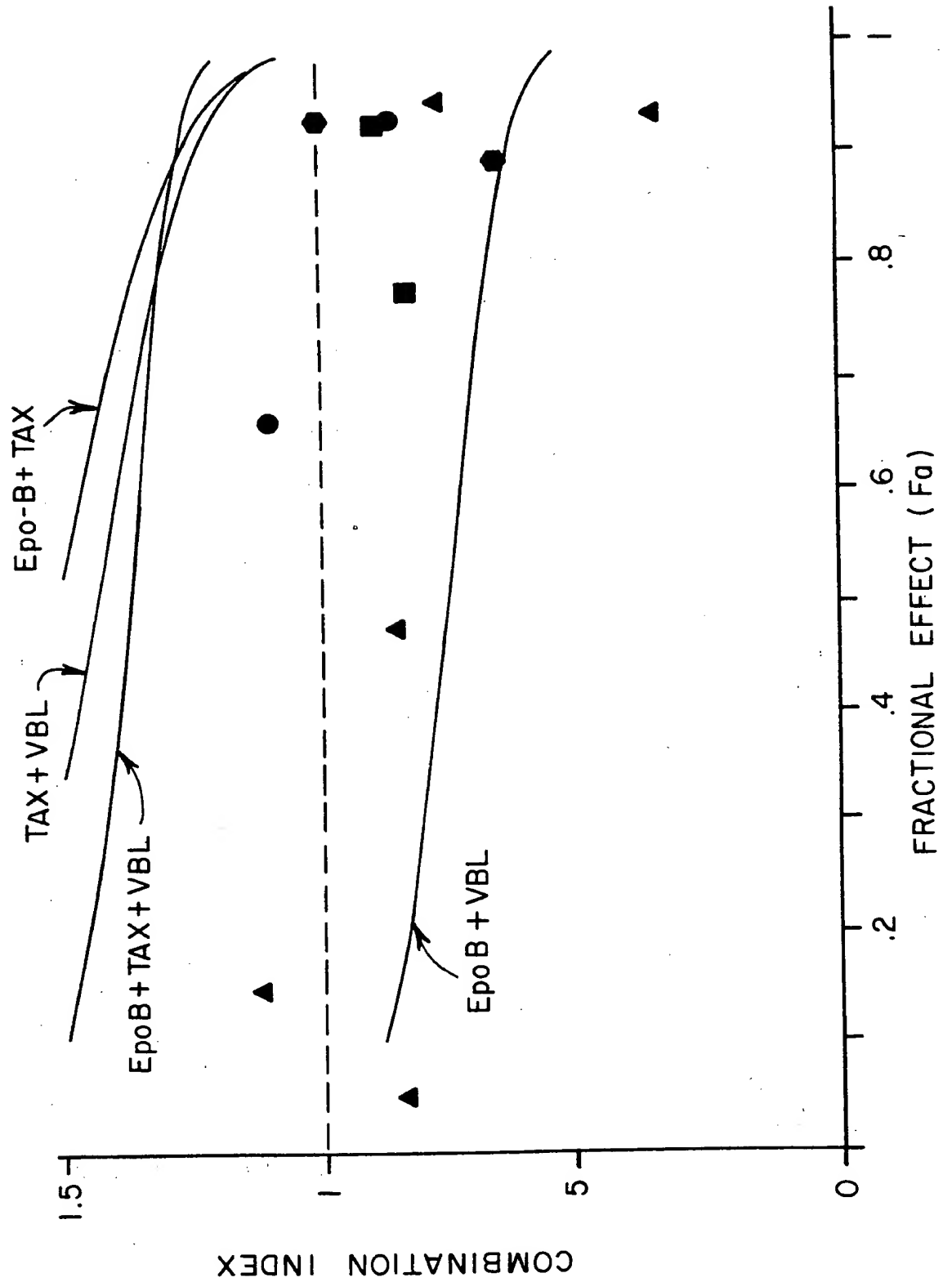
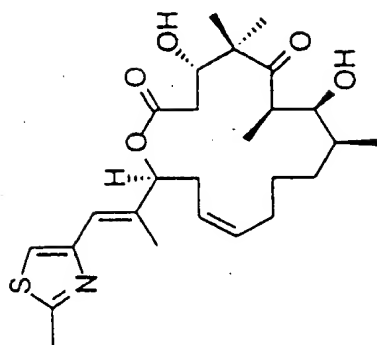


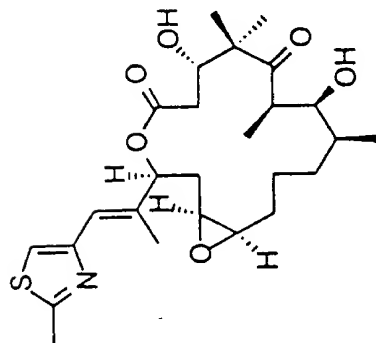
FIG. 39A



desoxyepothilone A

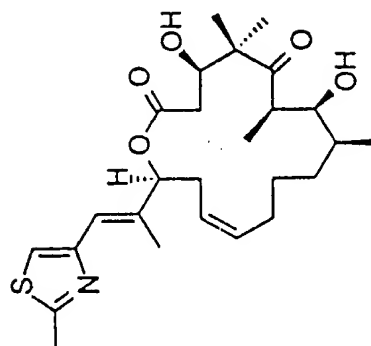
1

(0.022)
[0.012]



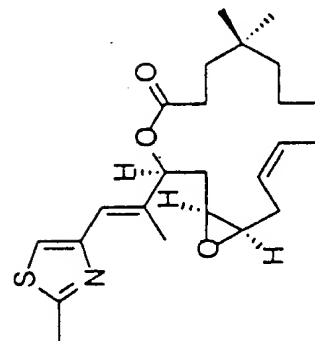
epothilone A

(0.0027)
[0.020]



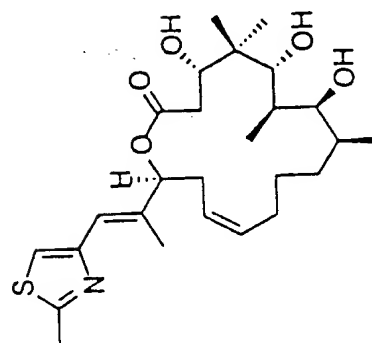
4

(2.12)
[43.0]



3

(271.1)
[22.4]



2

(14.23)
[6.28]

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BUDCLASS

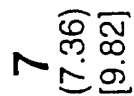
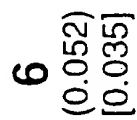
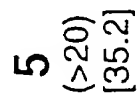
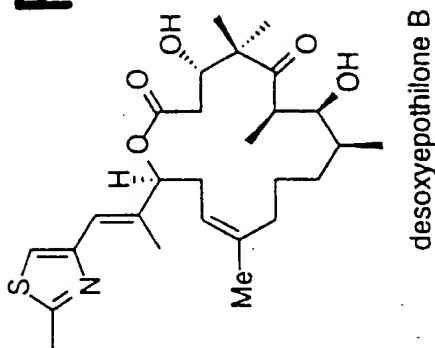
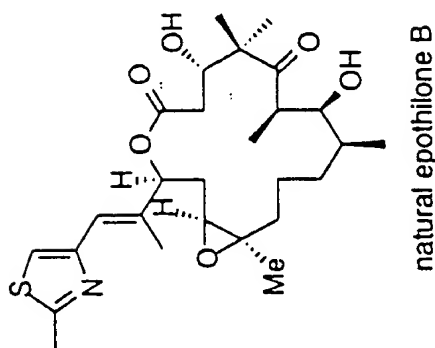


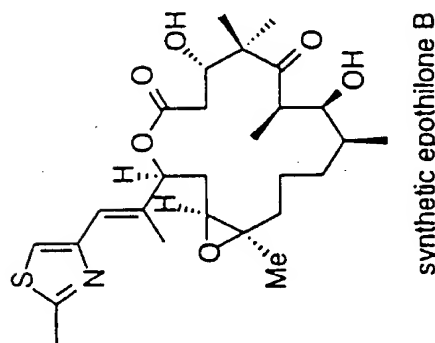
FIG. 40A



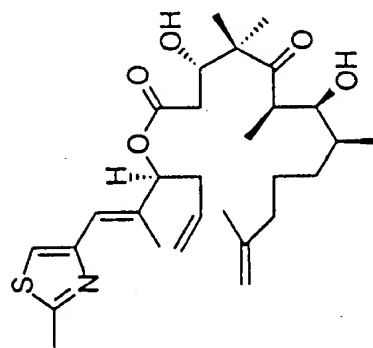
10
(0.0095)
[0.017]



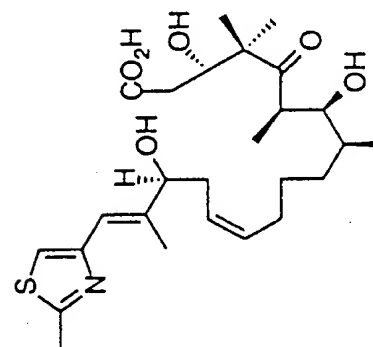
9
(0.00017)
[0.0012]



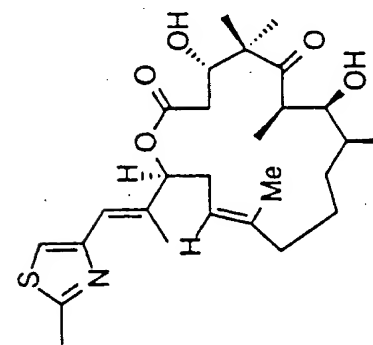
8
(0.00044)
[0.0026]



13
(11.53)
[5.63]



12
(0.79)
[>5]



11
(0.090)
[0.262]

FIG. 40B

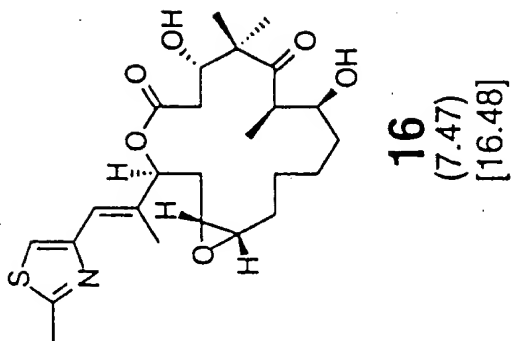
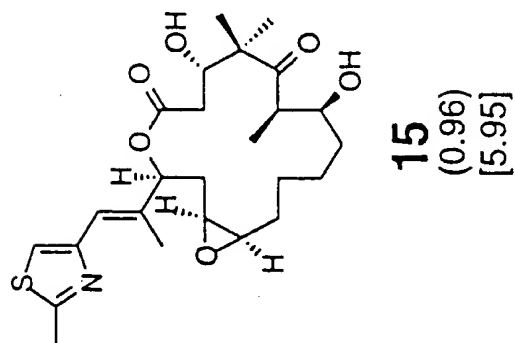
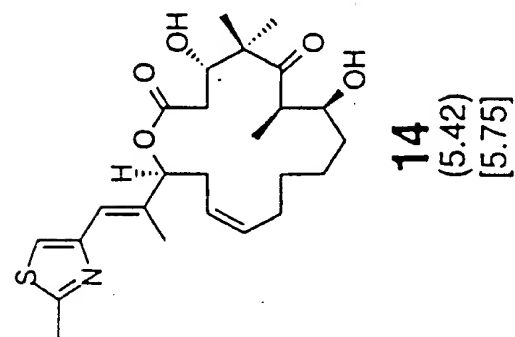
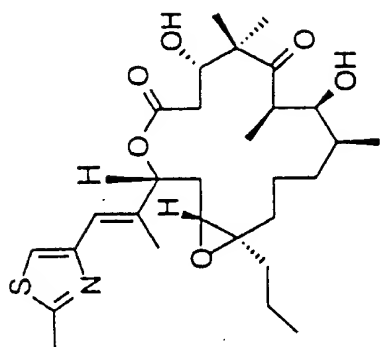
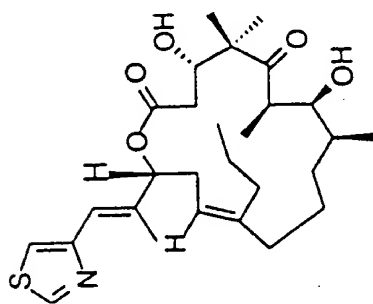


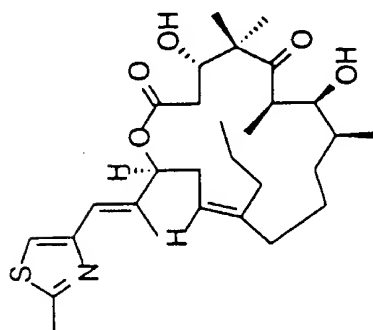
FIG. 41A



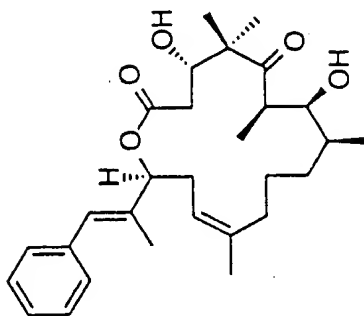
19
(0.96)
[>1.0]



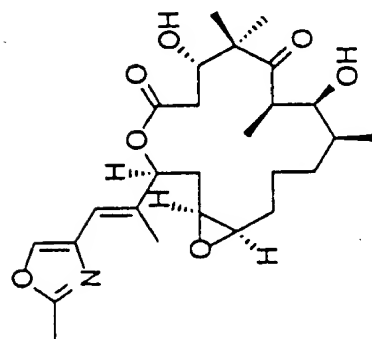
18
(1158)
[>720]



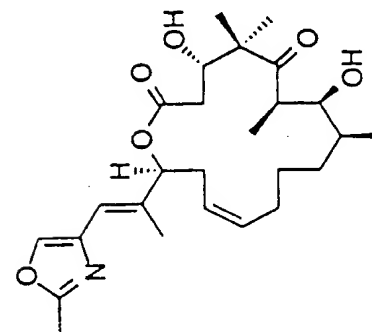
17
(0.090)
[0.254]



22
(0.098)
[0.146]



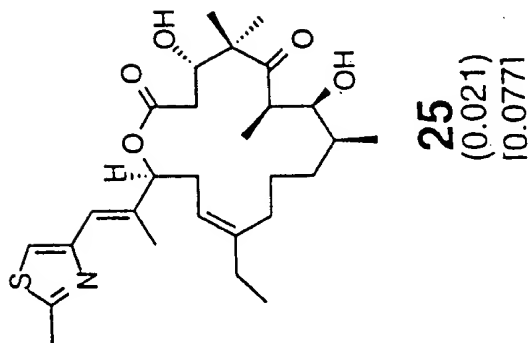
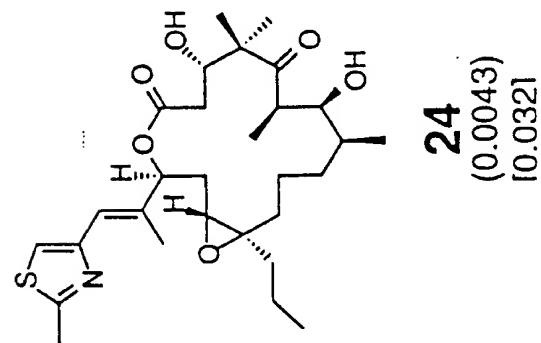
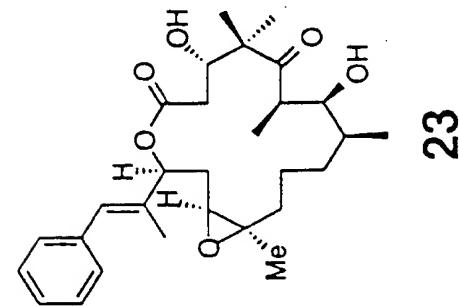
21



20
(0.030)
[0.049]

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FIG. 41B



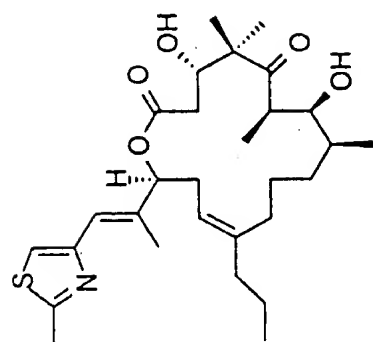
25
(0.021)
10.0771

24
(0.0043)
10.0321

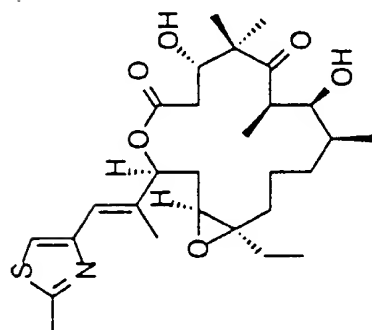
23

FIG.	110
CLASS	110
DRAFTS	110

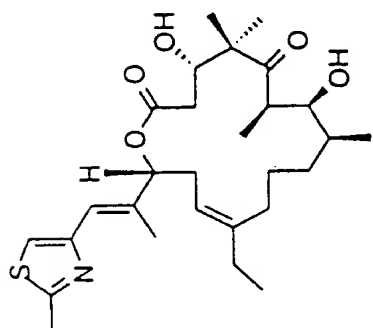
FIG. 42A



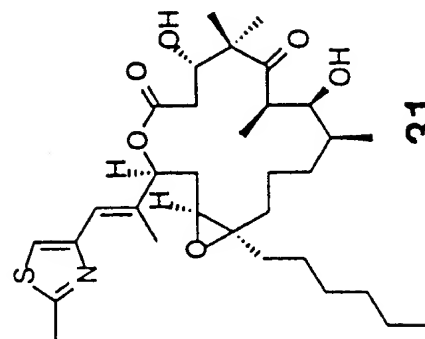
28
(0.039)
[0.067]



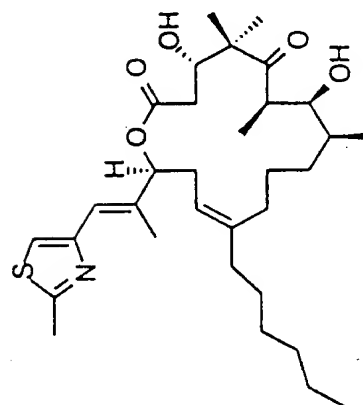
27
(0.0010)
[0.0072]



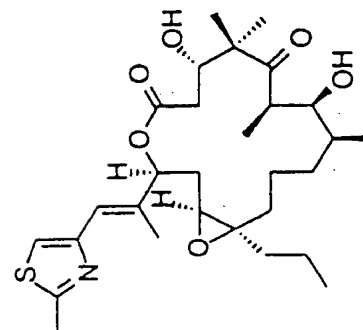
26
(0.055)
[0.197]



31
(0.027)
[0.049]



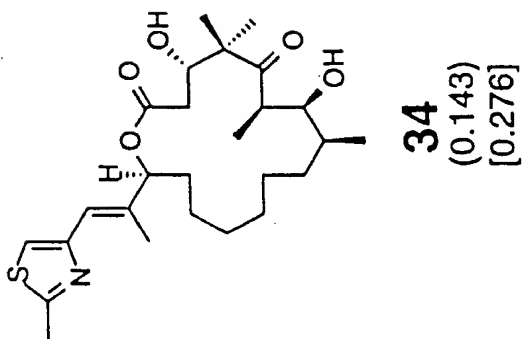
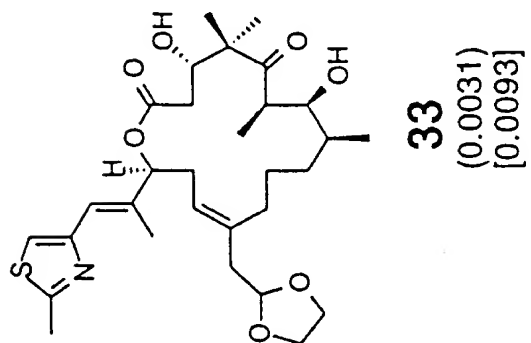
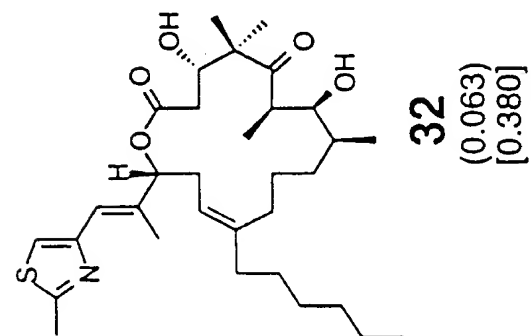
30
(0.044)
[0.108]



29
(0.0038)
[0.0064]

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FIG. 42B



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FIG. 42C

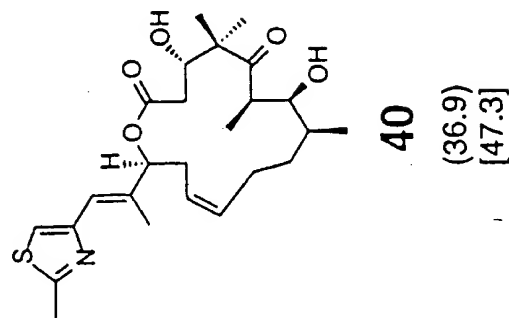
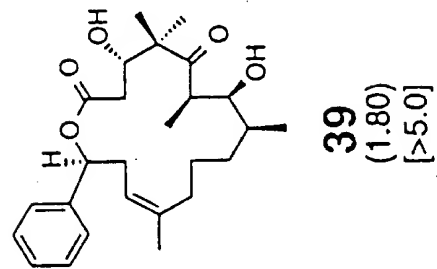
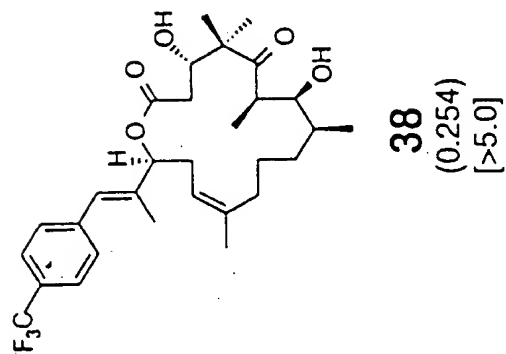
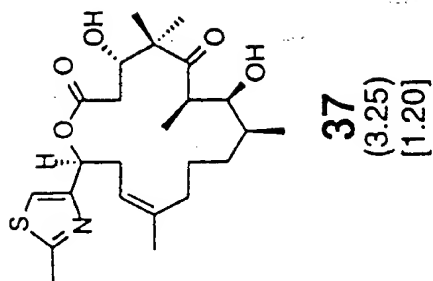
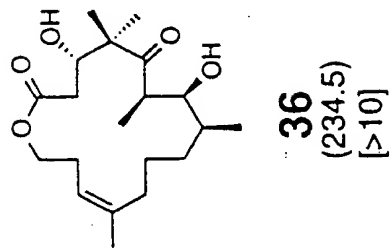
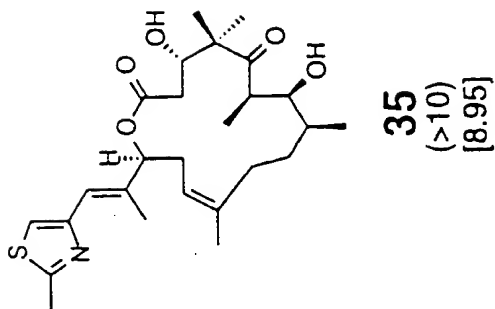
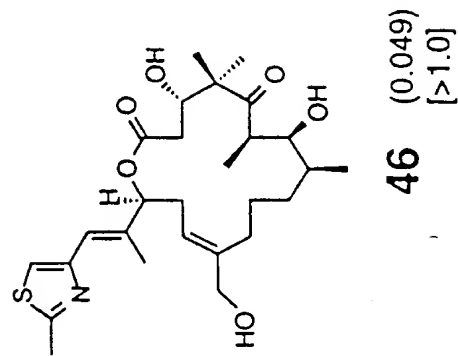
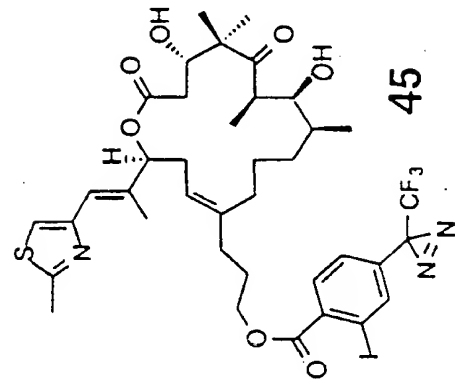
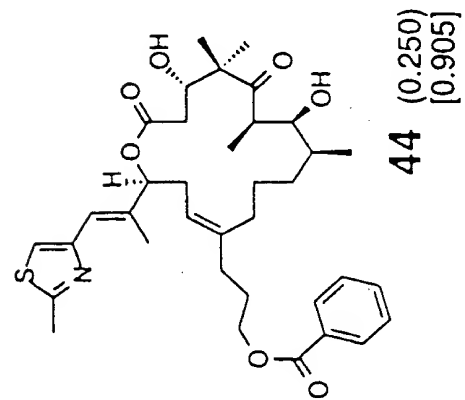
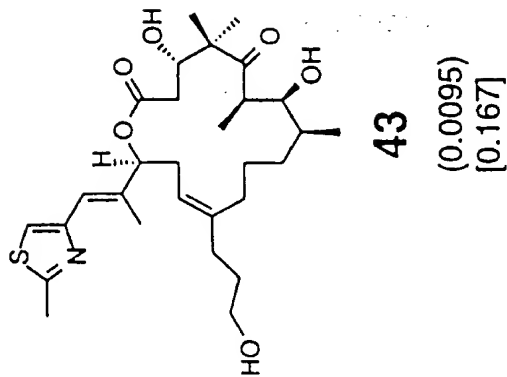
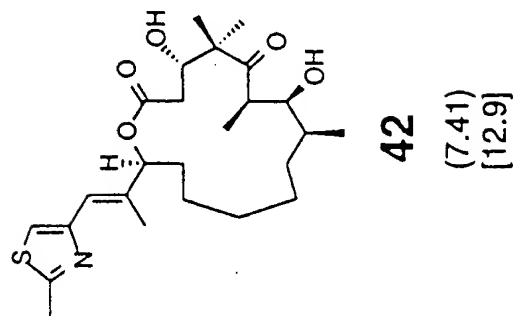
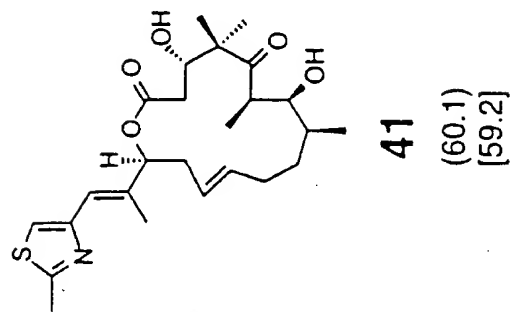


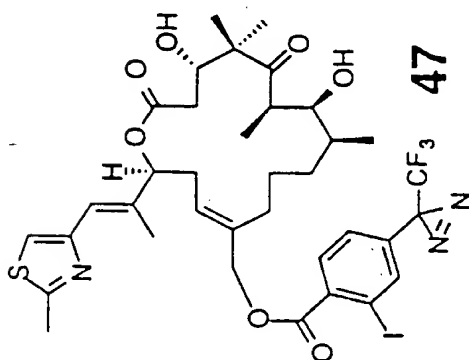
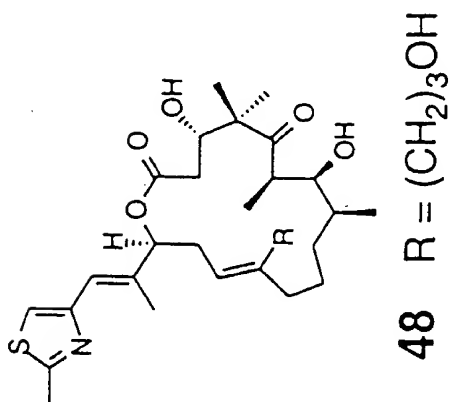
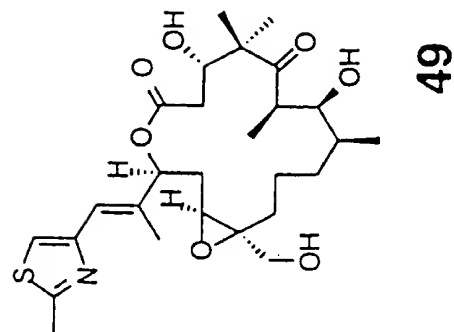
FIG. 42D



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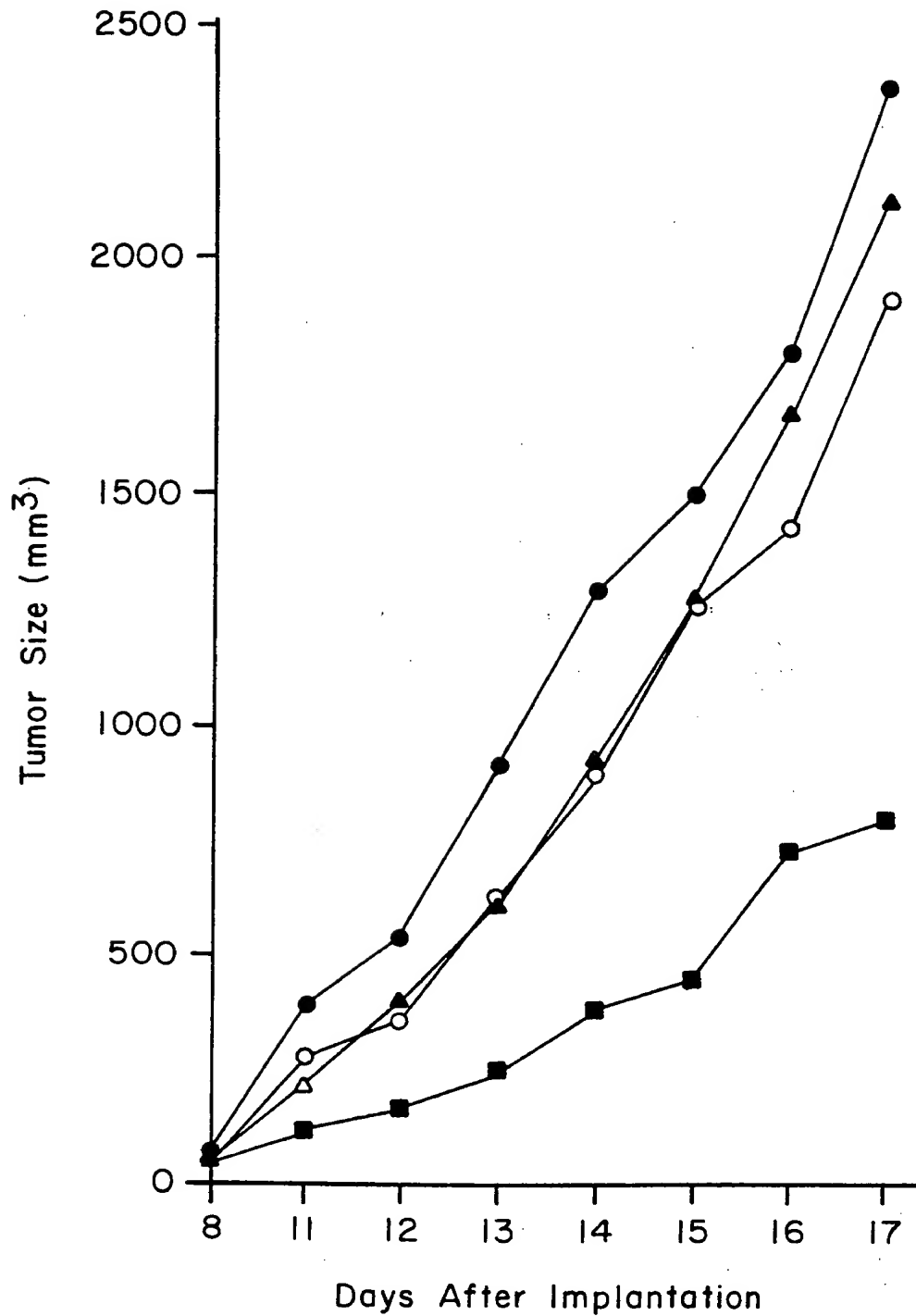
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FIG. 42E



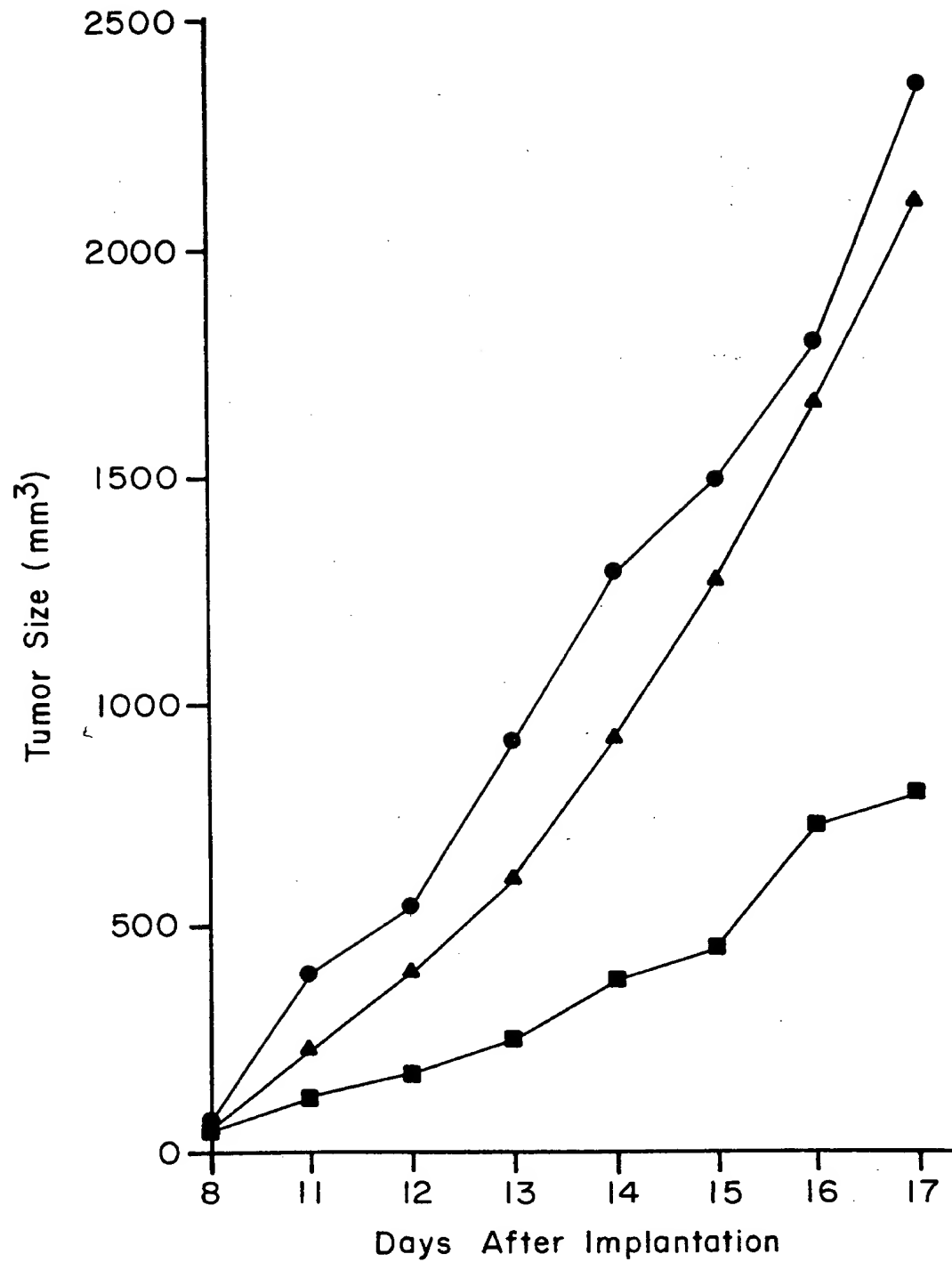
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FIG. 43A



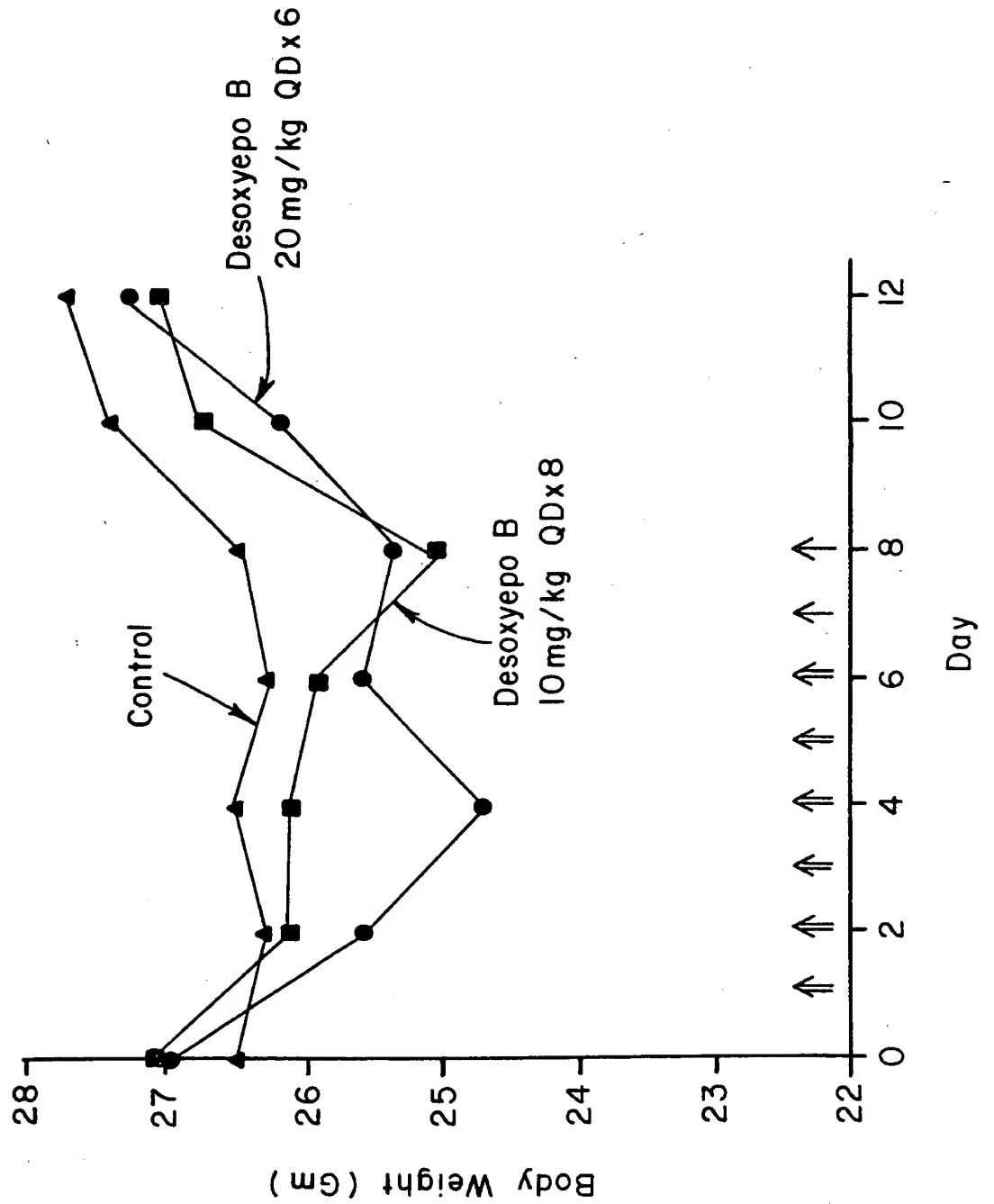
[illegible]

15 SUBCLASS



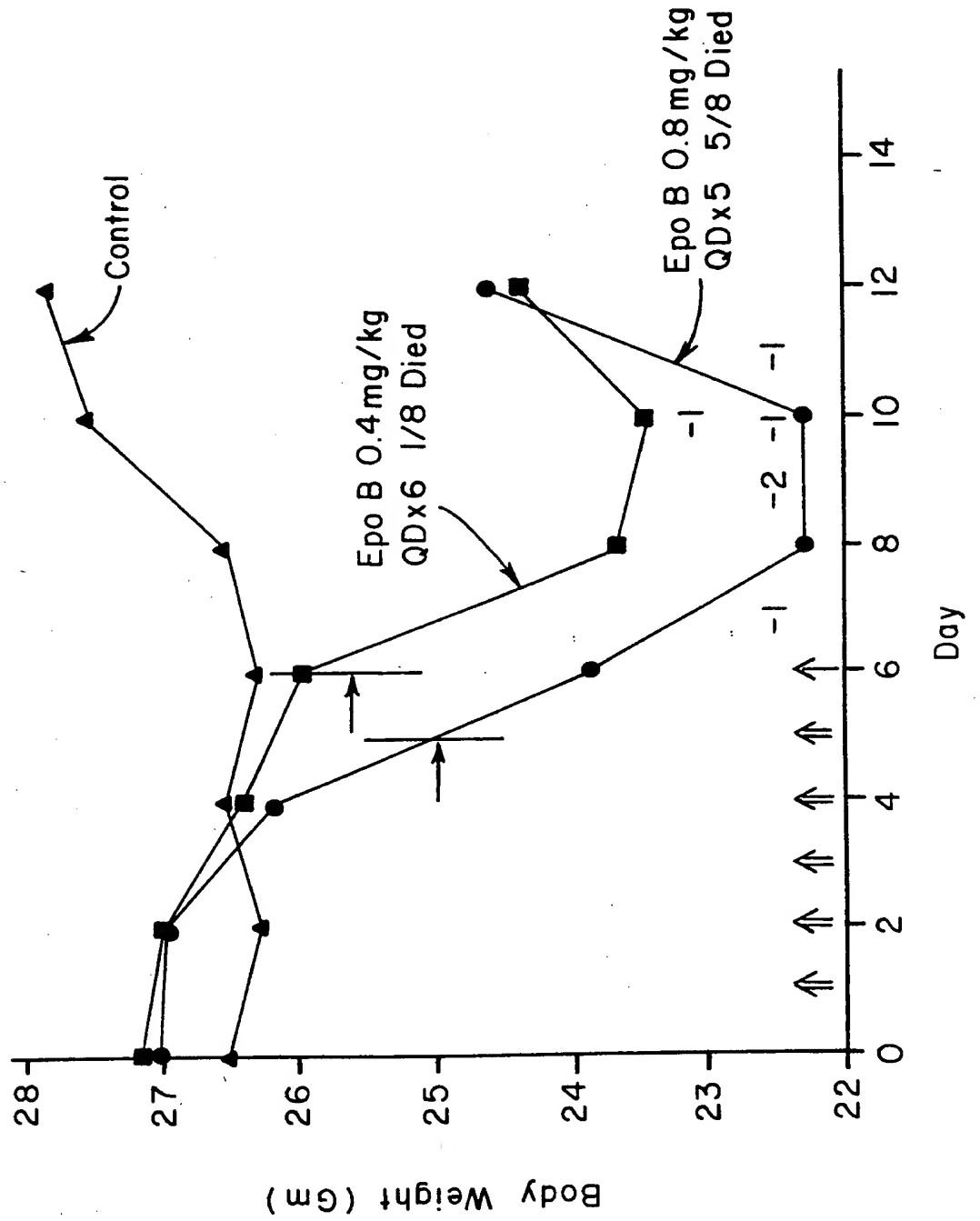
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FIG. 44A



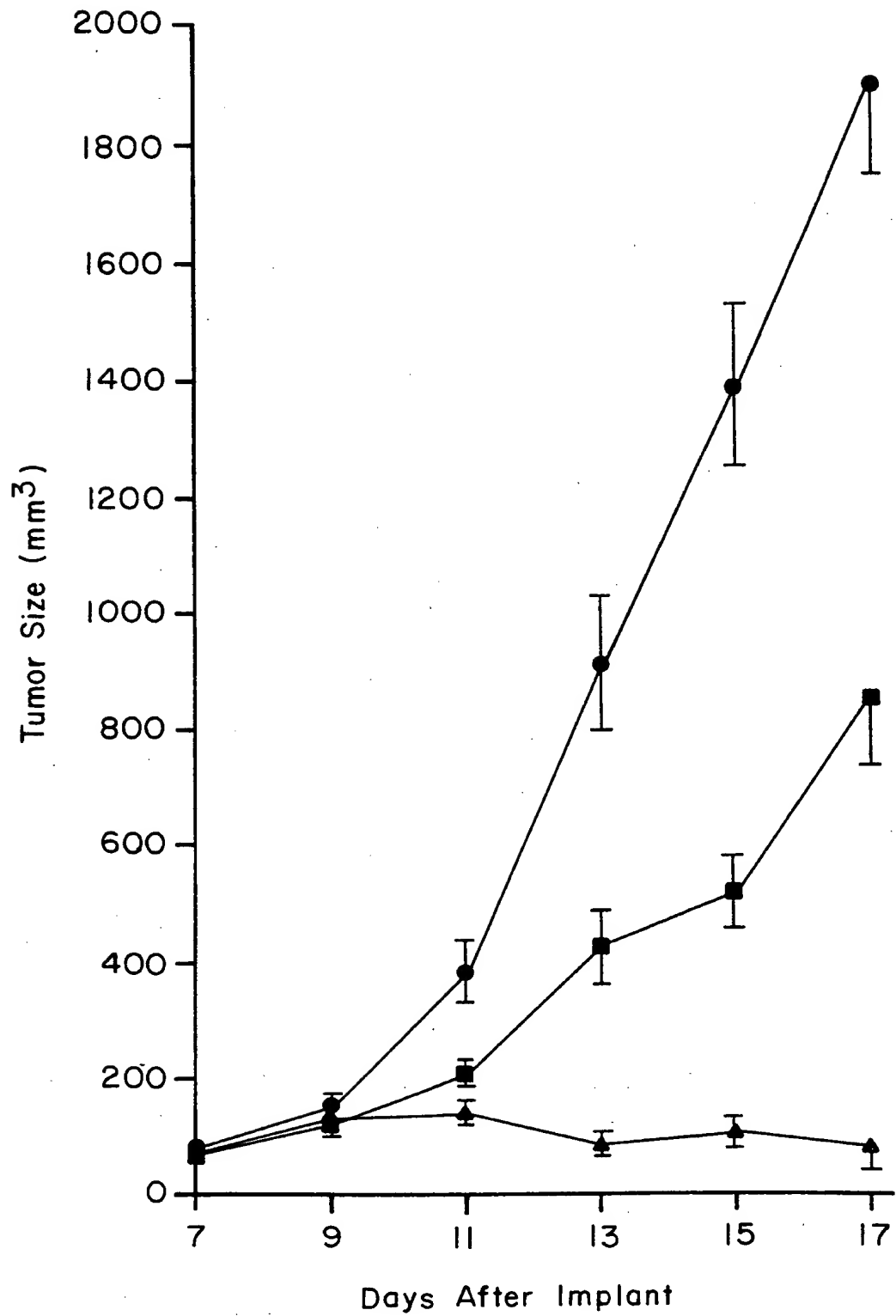
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FIG. 44B



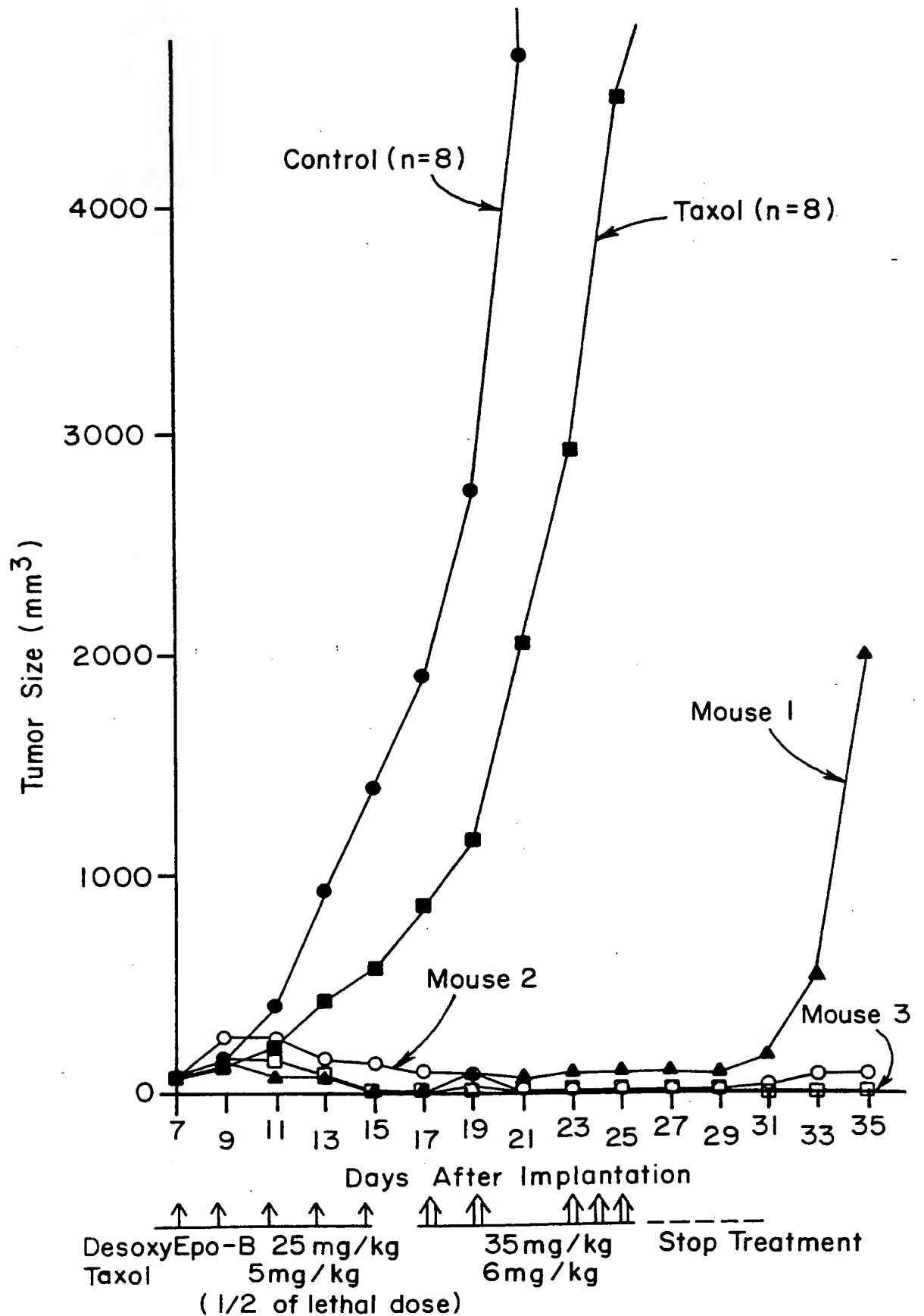
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FIG. 45A



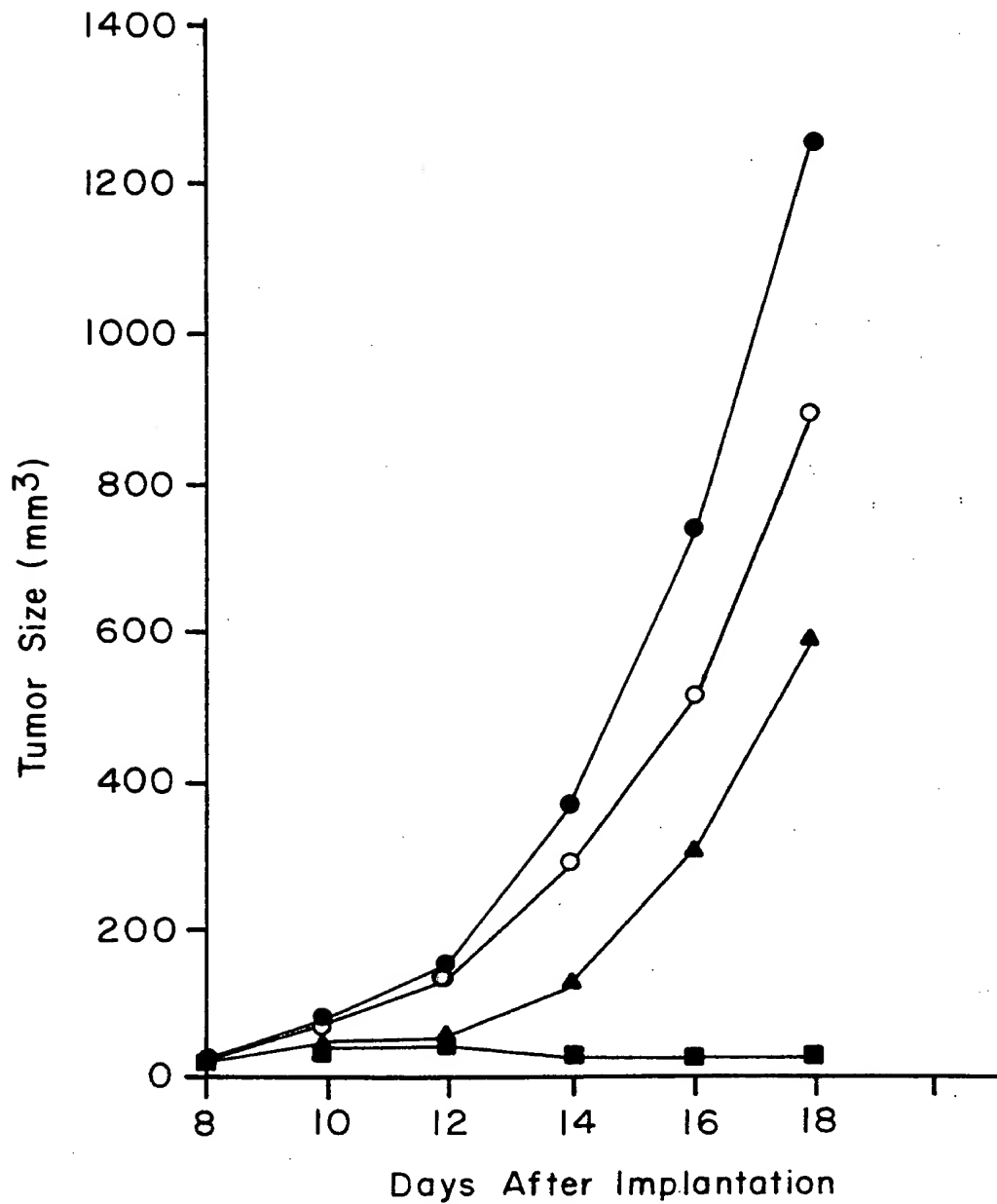
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FIG. 45 B



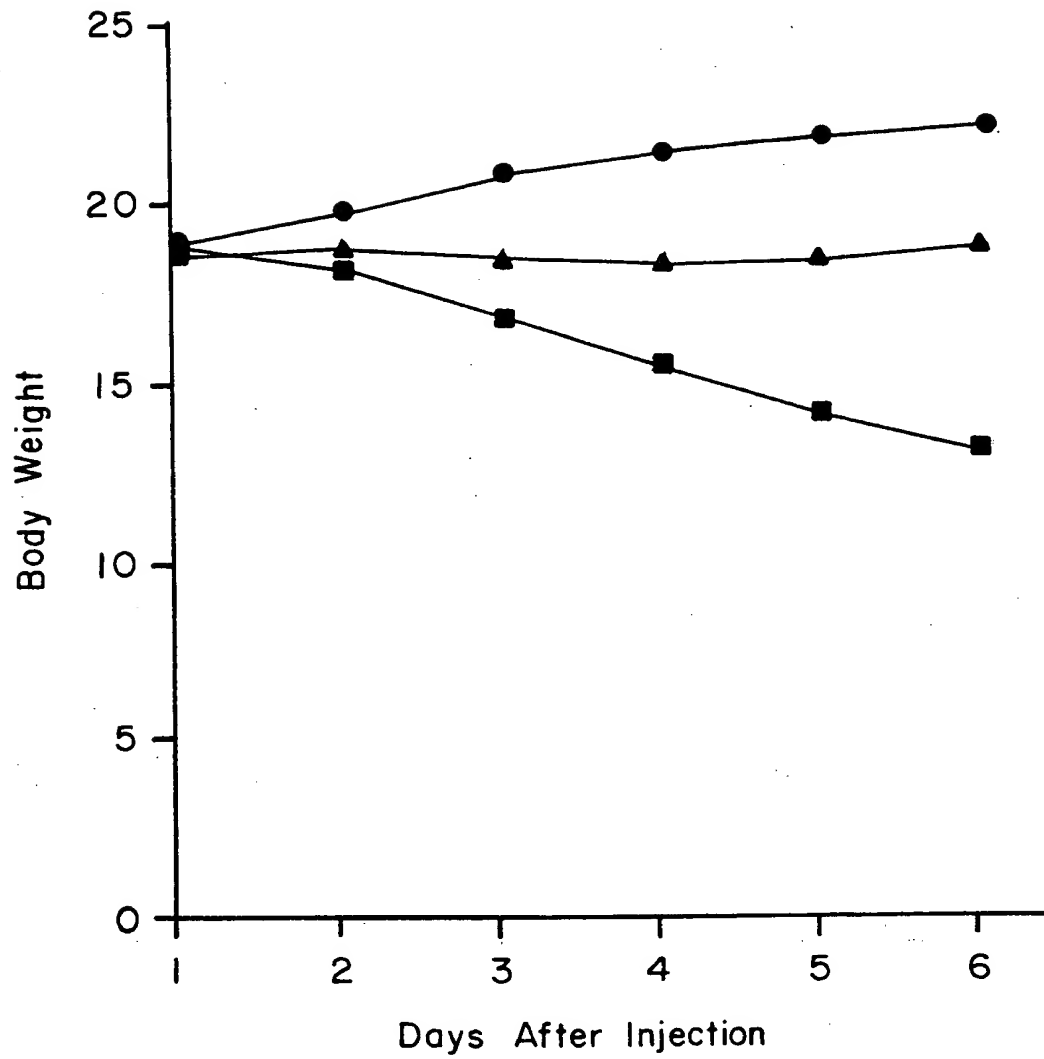
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FIG. 46



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FIG. 47



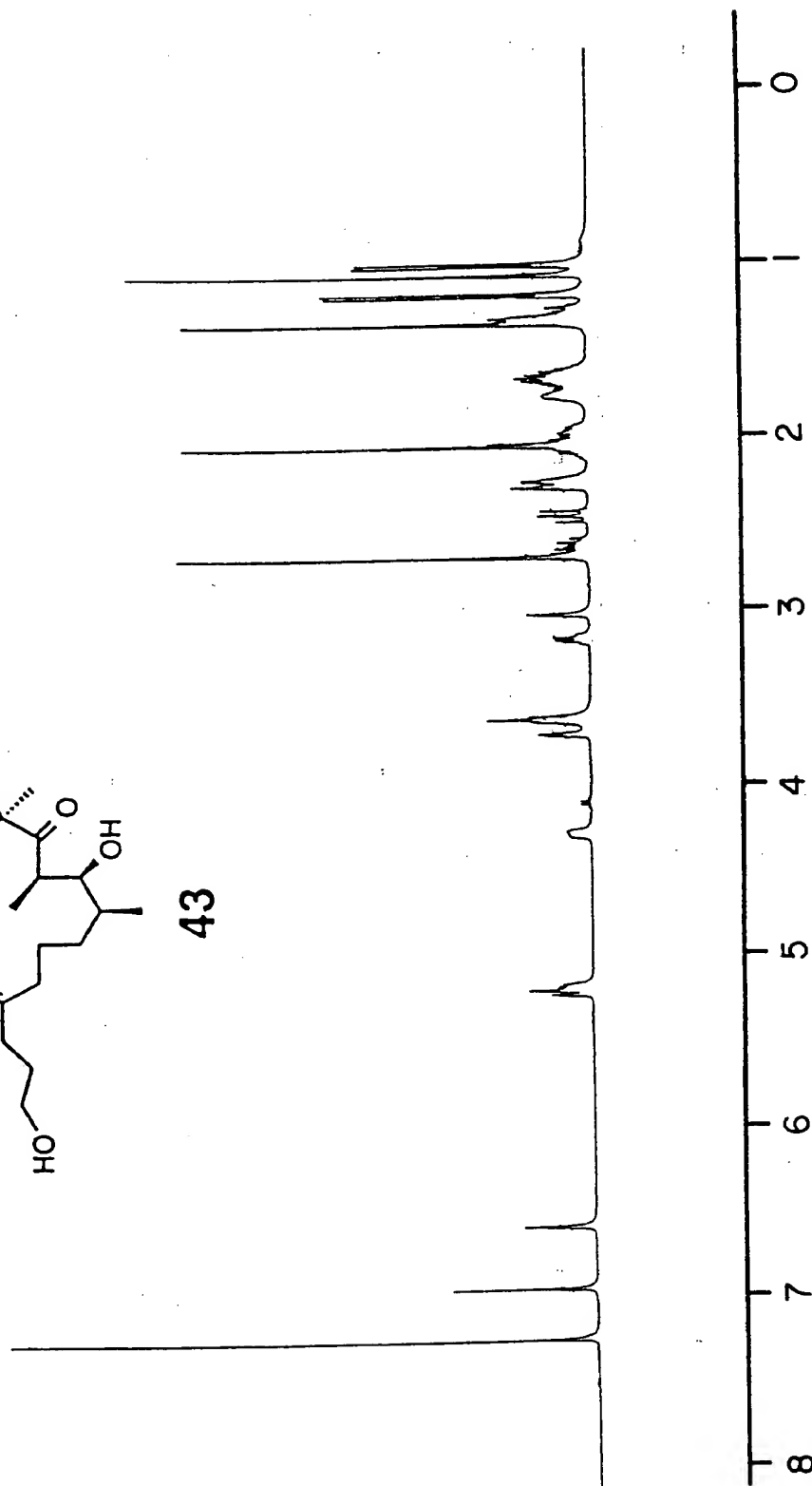
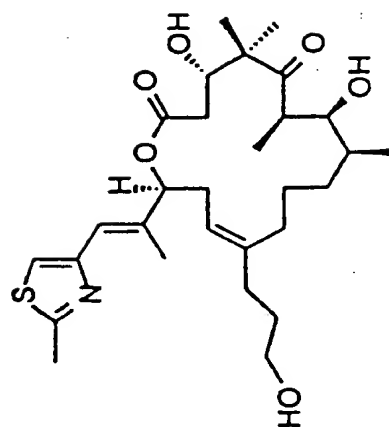
2

2.

1950-1951

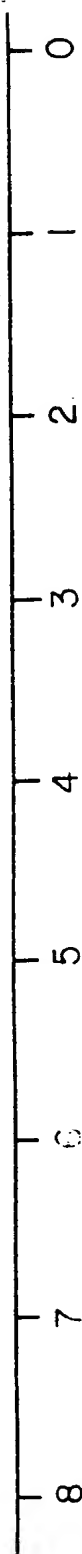
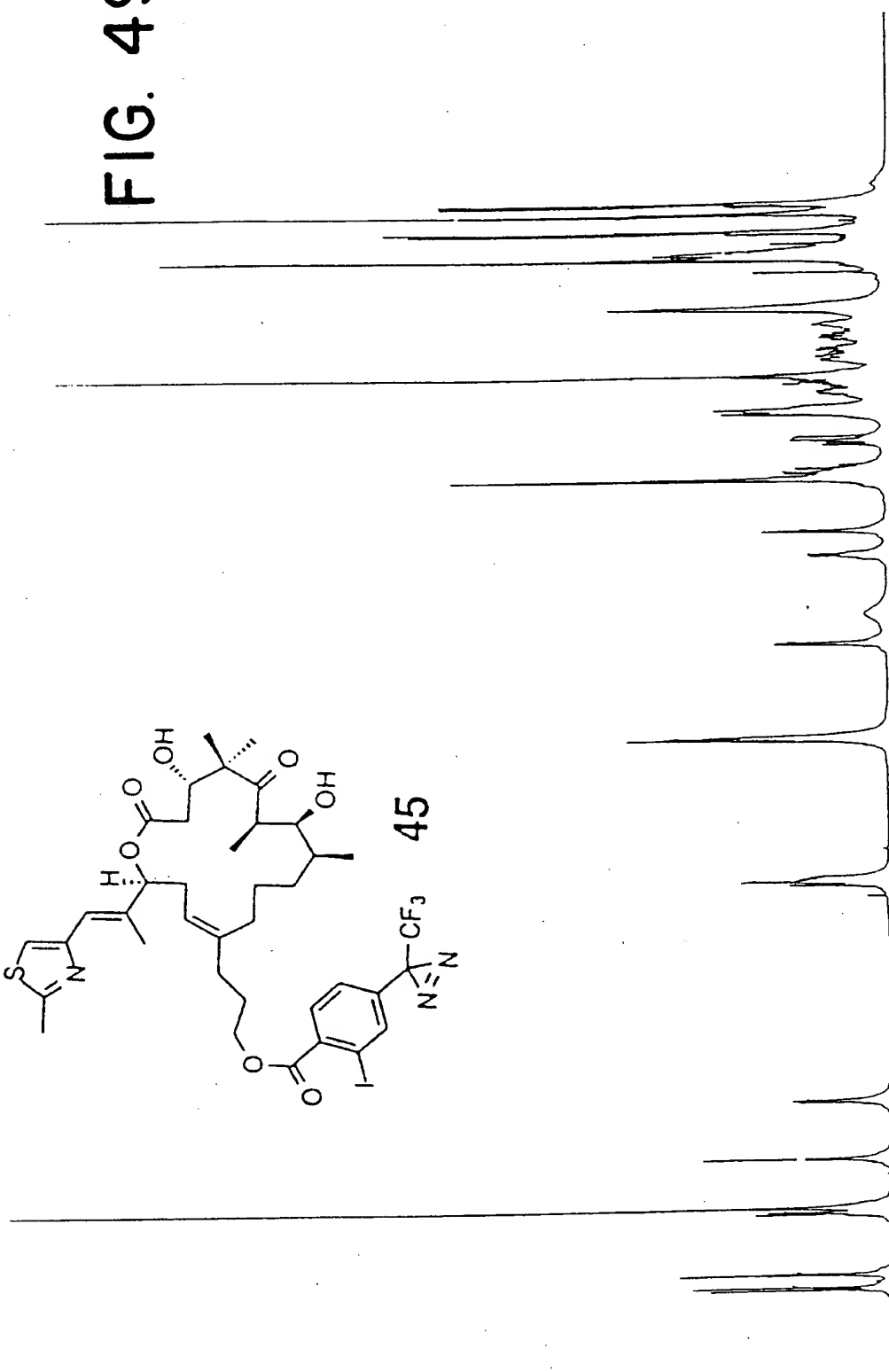
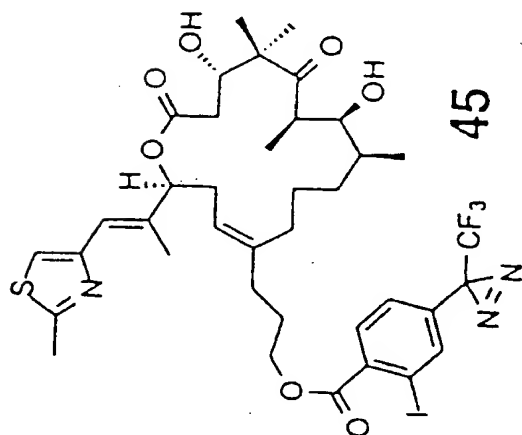
[illegible]

43



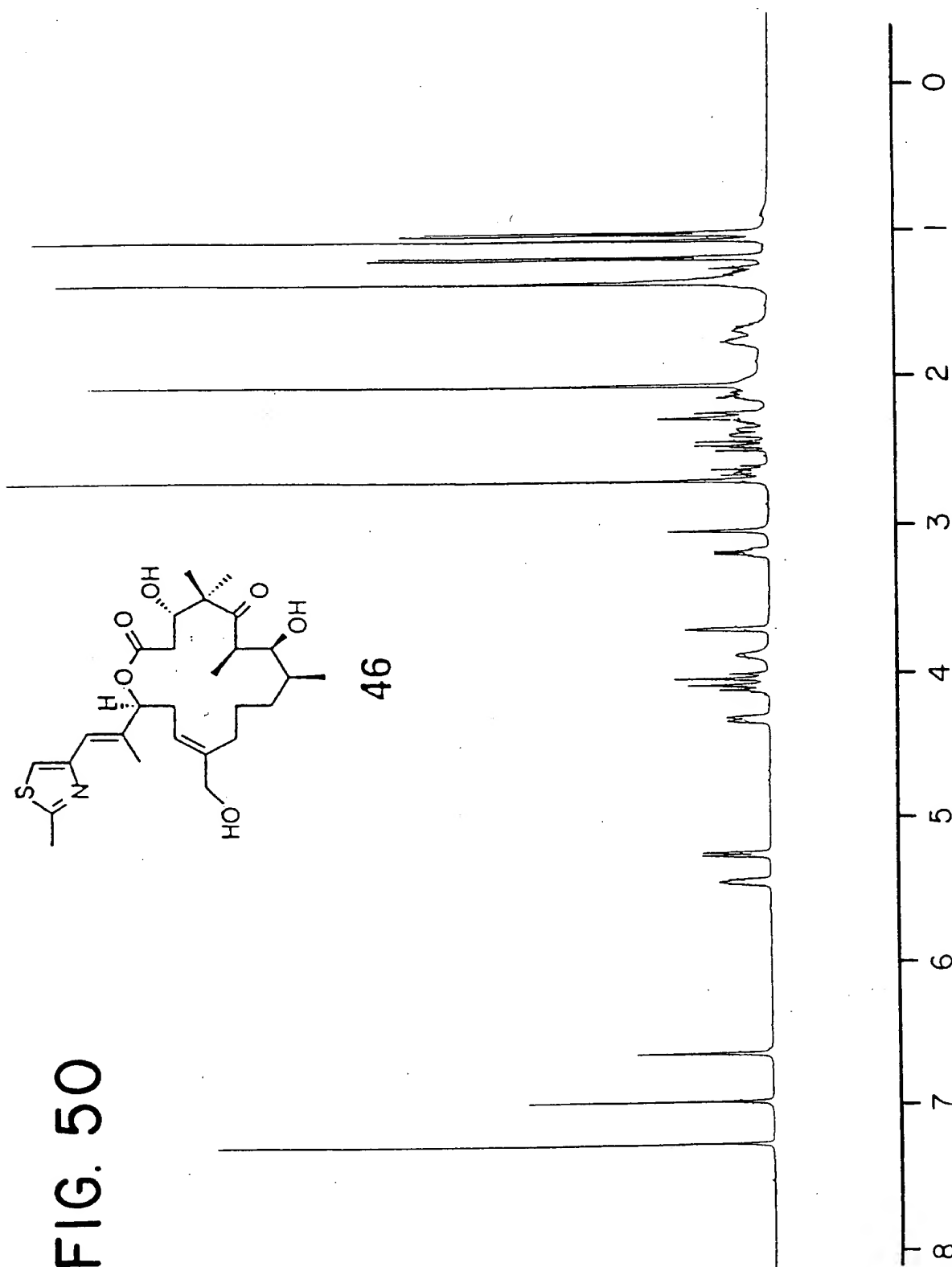
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FIG. 49

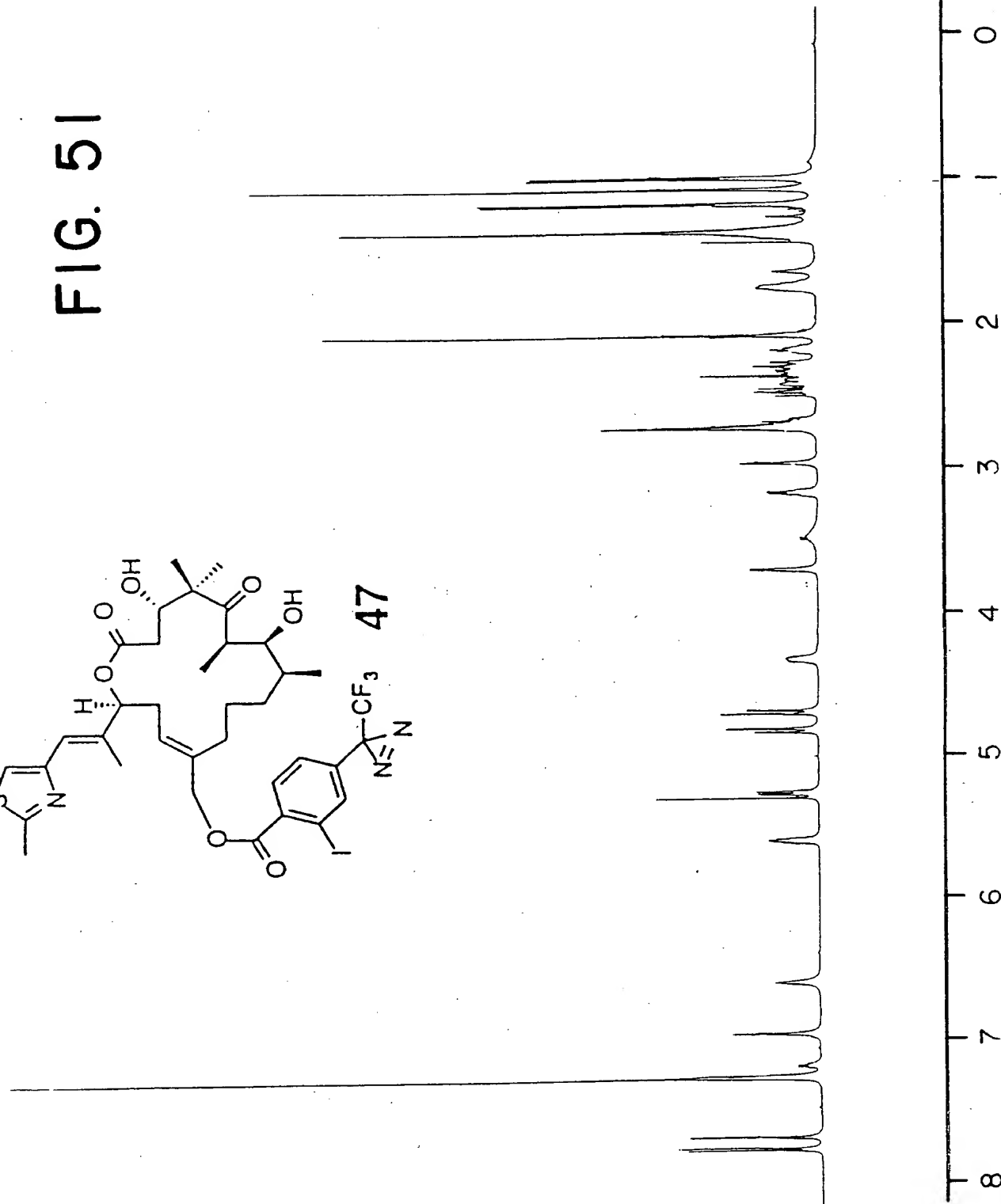


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WATER 0.1%
CLASS
ORIGIN



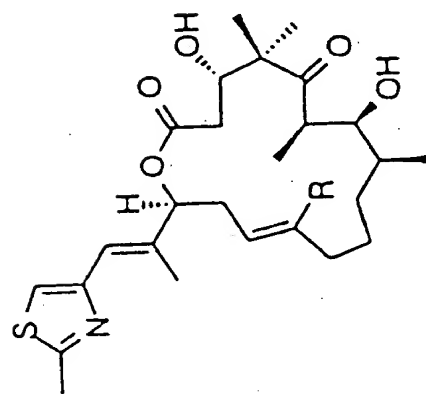
47



APPROVED BY _____
 DRAFTSMAN _____
 BY _____
 SUBCLASS _____

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FIG. 52



48 R = (CH₂)₃OH

